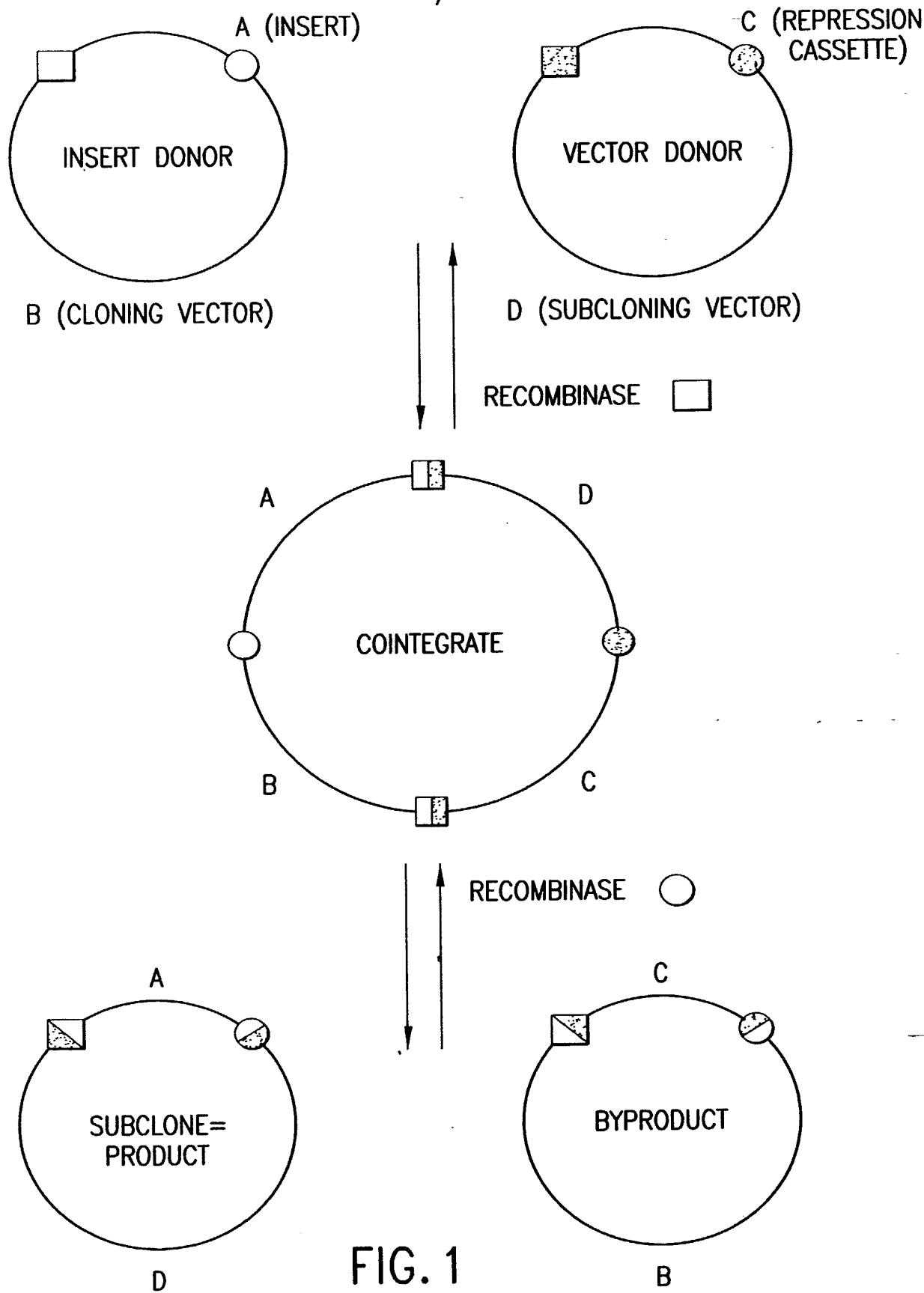


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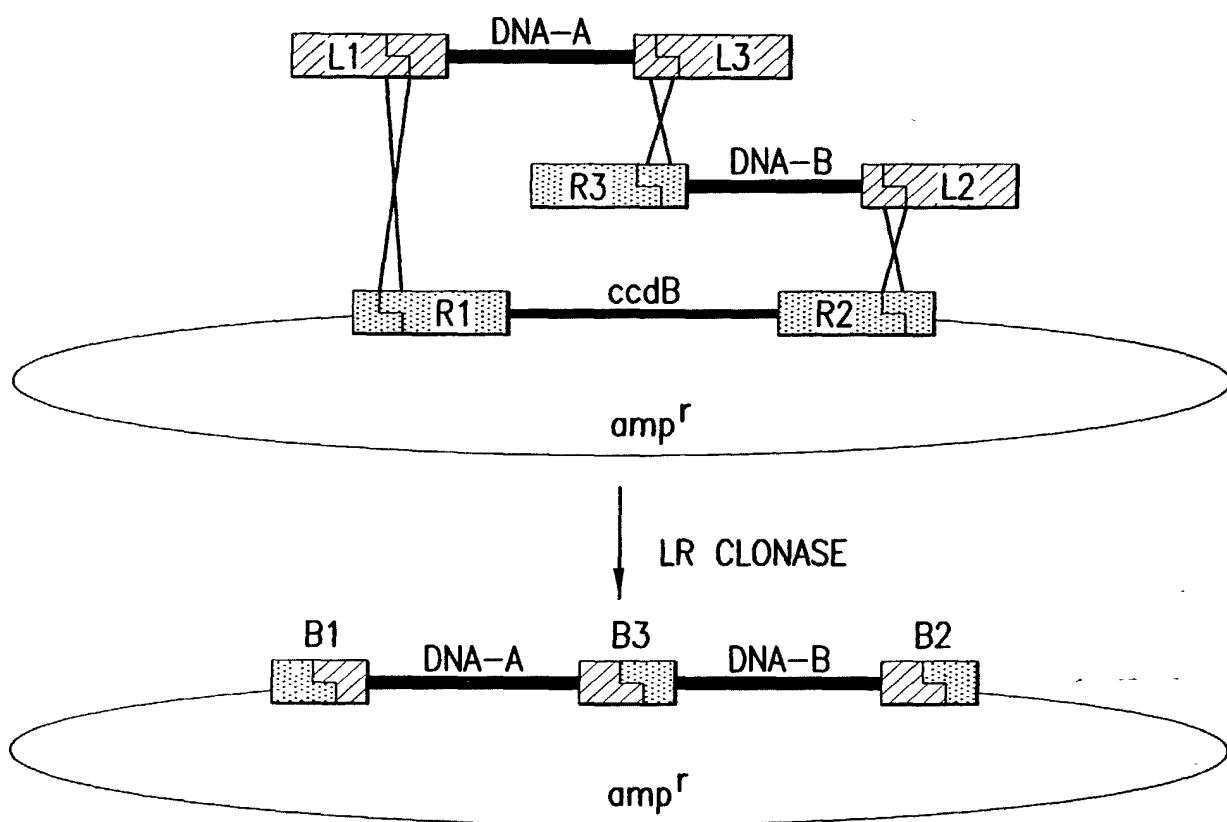


FIG. 2

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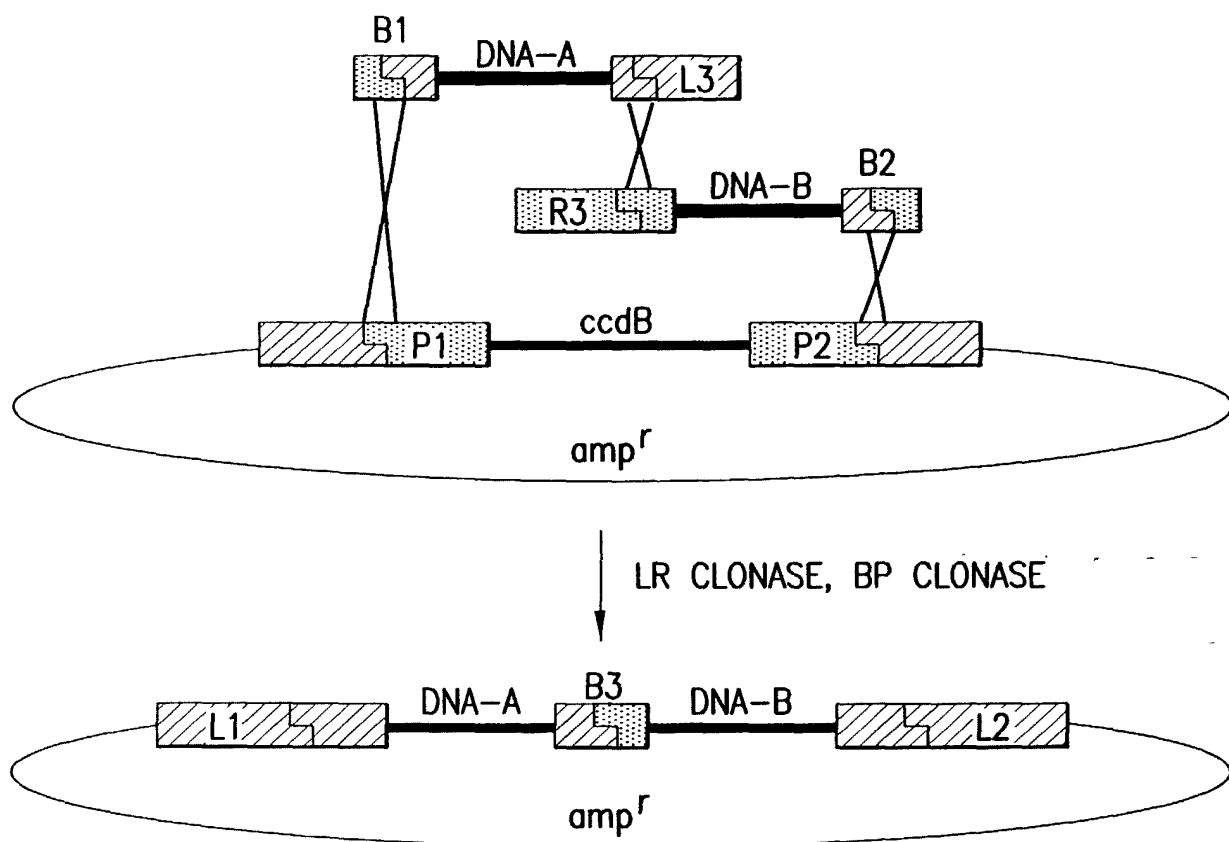


FIG. 3

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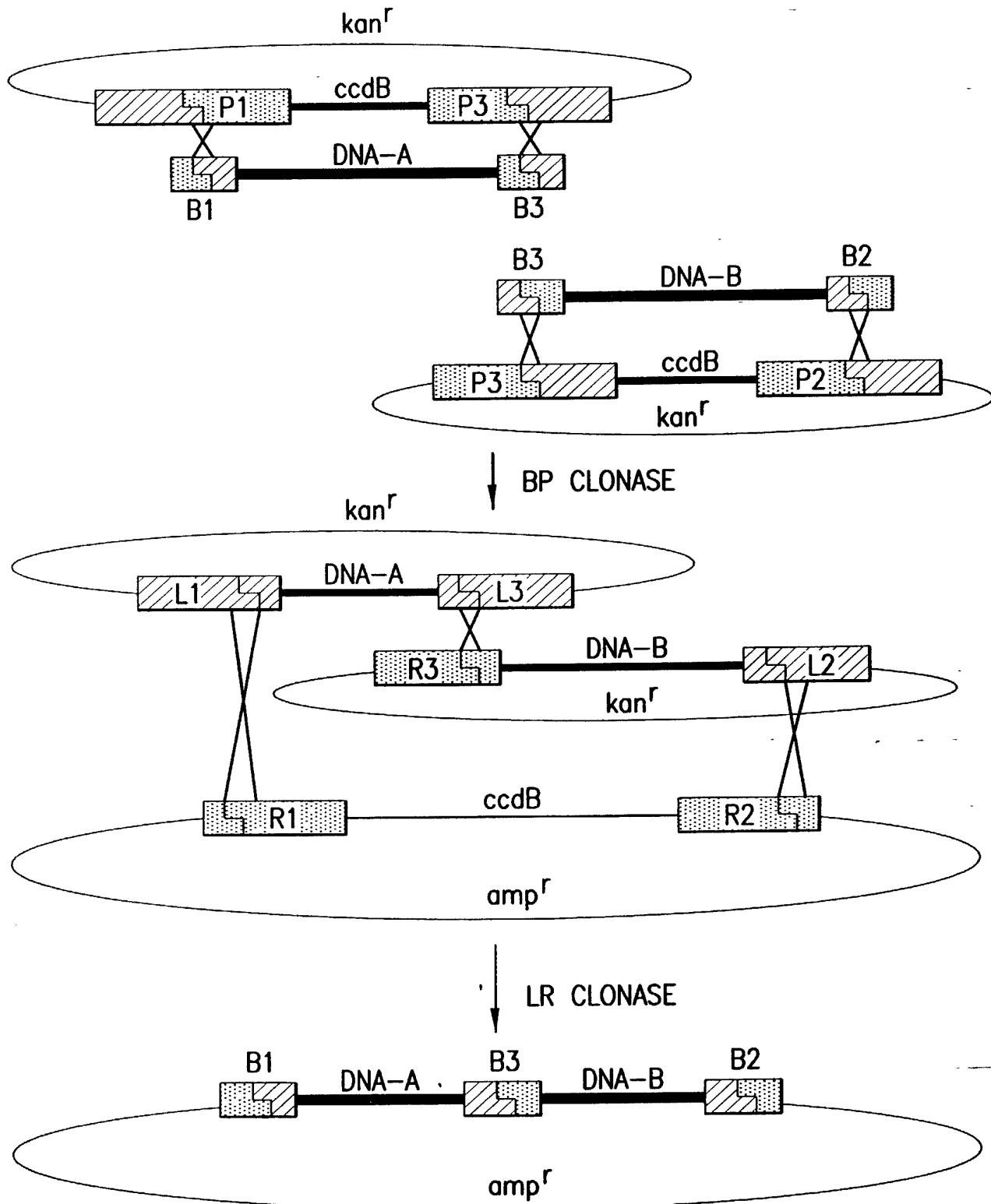


FIG. 4

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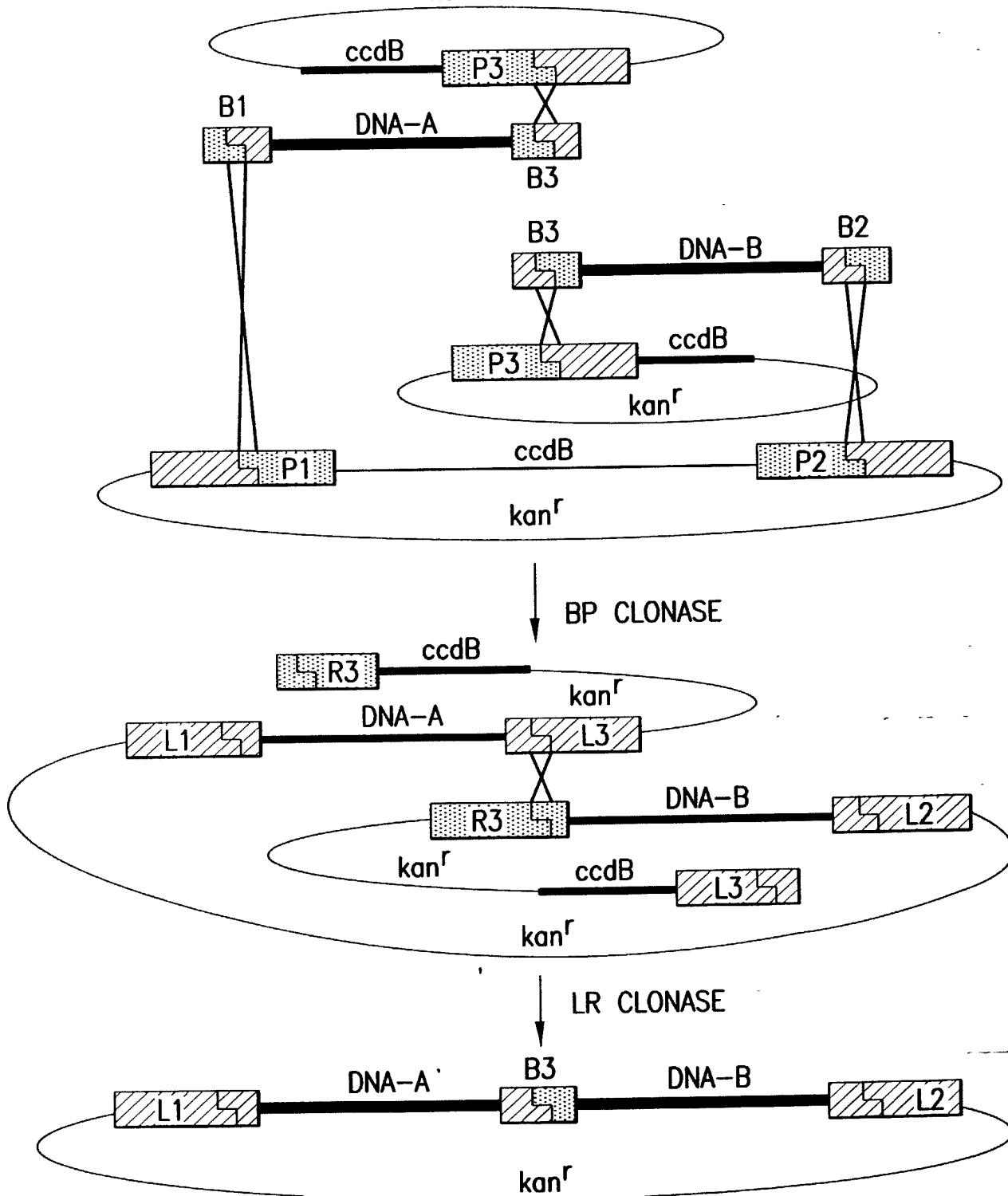
*kan*<sup>r</sup>

FIG. 5

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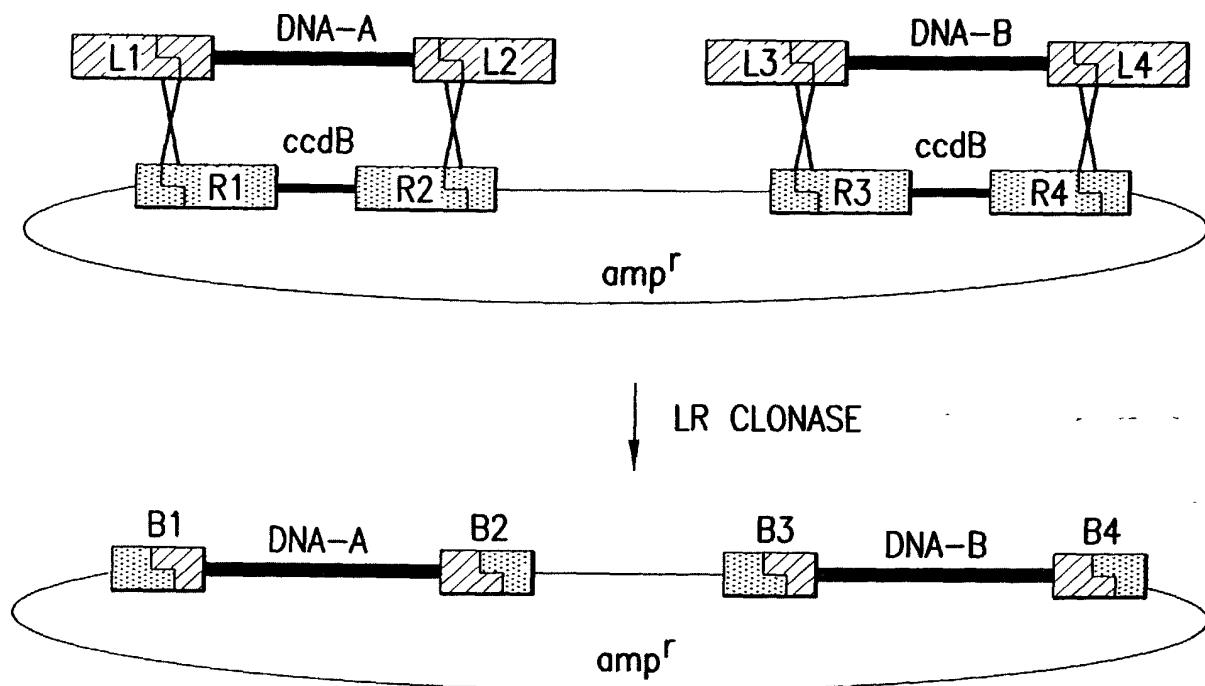


FIG. 6

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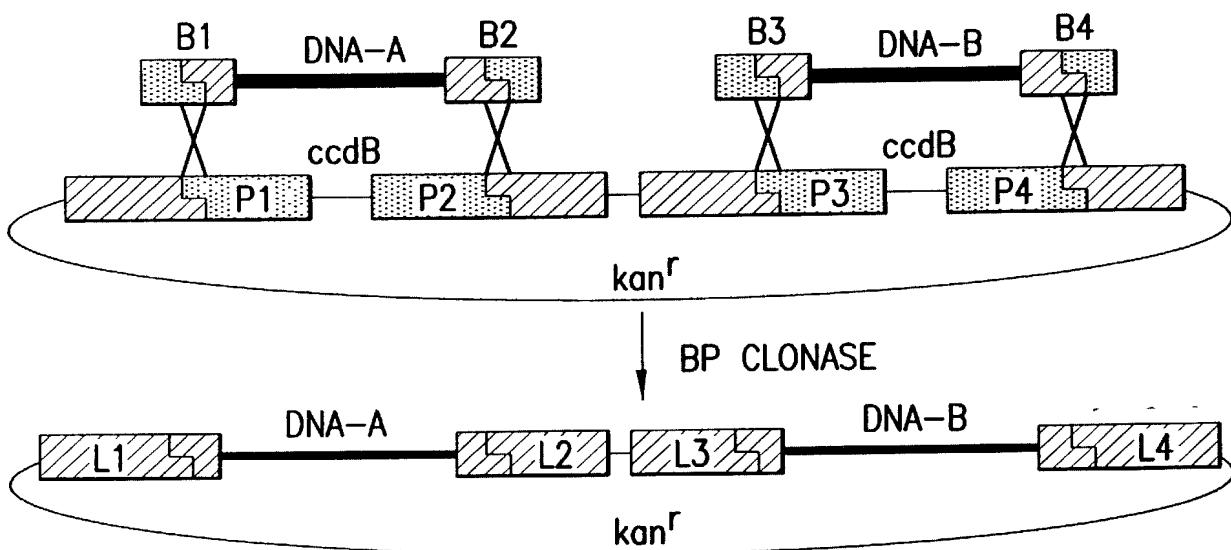


FIG. 7

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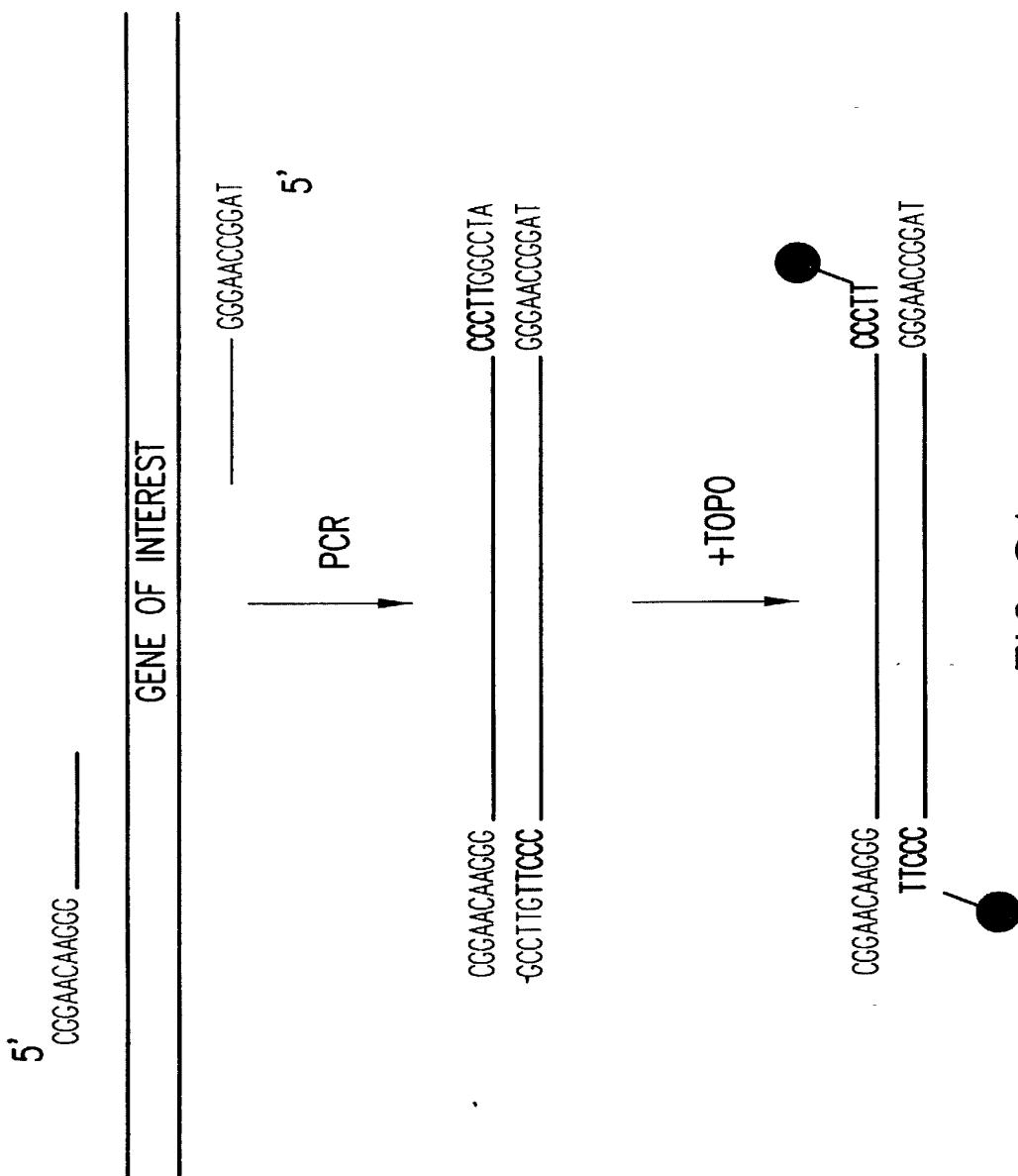


FIG. 8A

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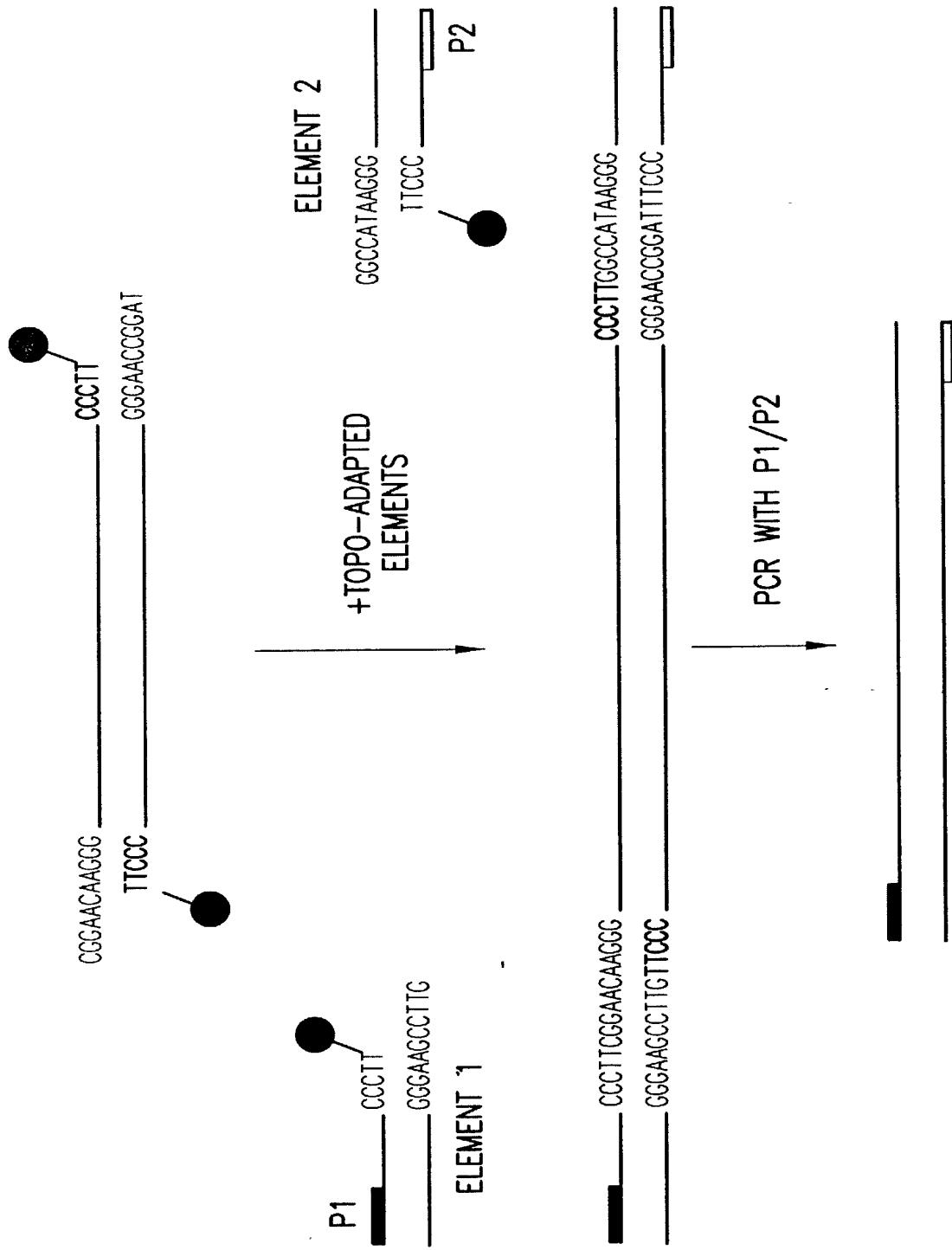


FIG. 8B

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## BGH ELEMENT

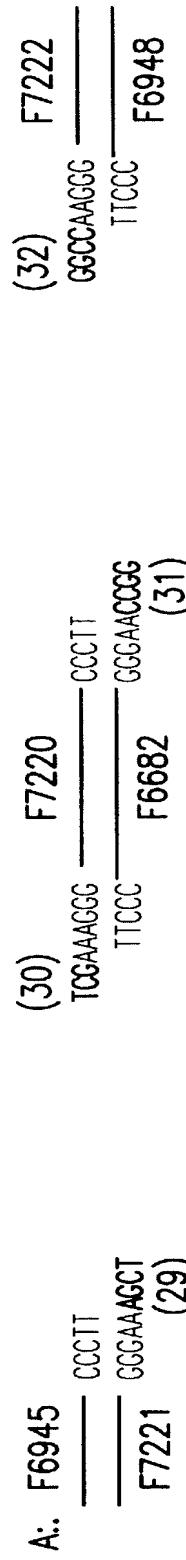


FIG. 9A

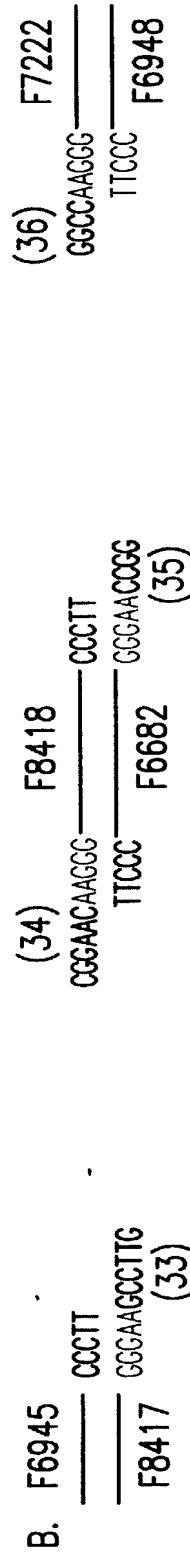


FIG. 9B

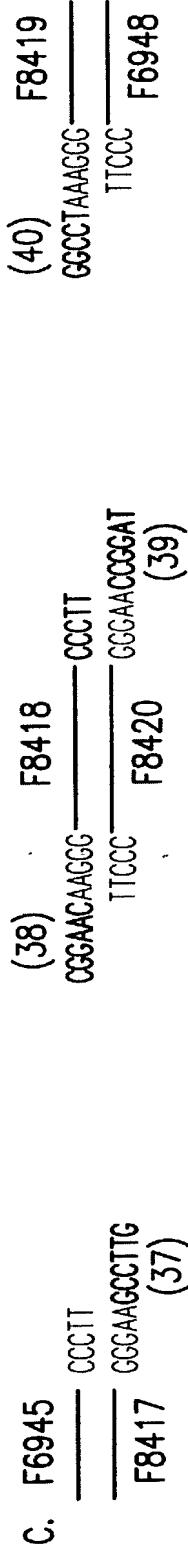


FIG. 9C

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TABLE 1

Primer name	F#	Sequence (5'→ 3')	SEQ ID NO:
MTH1	10779	TATGTATCATACACATACTGATTTAGGT	1
MTH2	10780	ACCGCCTCTCCCCGGCGTT	2
GAL4r2	12667	GTTCCGAAGGGGGCGATACAGTCAACTGTCTTG	3
MTH5	12505	TTGGCCAAGGGTATCTAGAAGCTTCTGCAGACGGT	4
VP16r2	12668	GTTCCGAAGGGCCACCGTACTCGTCATTCAAG	5
SV40pAf	12016	GGCCAAAAGGAACCTGTTATTGAGCTTATAATG	6
SV40pAr	561	CTCTGACTTGAGCGTCGATTT	7
p53f2	12669	CGGAACAAGGGAAATTCCCTGTCAACCGAGACC	8
SVTf2	12670	CGGAACAAGGGAAATTCCCGGGATCTGAAATTC	9
CMVr2	7221	TCGAAAGGGTCGAGGTGACCTGCAGCTG	10
CMVf	6945	AATTCACATTGATTATTGAGTAGTTA	11
GFP-Xhof	7220	TCGAAAGGTAATGCCAGCAAAGGAGAAC	12
GFP-Notr	6682	GGCCAAGGGTTGTAGAGCTATCCAT	13
BGHf2	7222	GGCCAAGGGTCTGAATGGGGCCGCATAGT	14
BGHR	6948	AAGCCATAGAGCCCCGGCCA	15
CMVr3	8417	GTTCCGAAGGGTCGAGGTGACCTGCAGCTG	16
GFPf3	8418	CGGAACAAGGGATGCCACCAAAAGGAGAAC	17
GFPPr3	8420	TAGGCCAAGGGTTGTAGAGCTATCCATGC	18
BGHf3	8419	GGCCTAAAGGGTAATGGGGCCGCATAGT	19
T7top	9304	GAAGGAGTAATACGACTCACTATAGGAGCCACCATGGGCCCTTCGGAAC	20
T7bottom	9305	GTTCCGAAGGGCCCATTGGTGGCTCCCTATAGTGAGTCGTATTACTCCTTC	21
T7amp	9306	GAAGGAGTAATACGACTCACT	22
T3top	9661	GGCCTAAAGGGCCCTTAGTGAGGGTTAATTGGCGCGC	23
T3bottom	9662	GCGCGCAATTAAACCTCACTAAAGGGACCCCTTAGGCC	24
lacZf2	10632	CGGAACAAGGGATGATAGATCCCTCGTTTACA	25
lacZ1k2	10770	TAGGCCAAGGGACCATTTCAATCCGACCT	26
lacZ2k2	10771	TAGGCCAAGGGAGGACTTCACCGCTTGCCA	27
lacZ3k2	10772	TAGGCCAAGGGTTGACACCAGACCAACTGGTA	28

FIG. 9D

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FIG. 10A

SAMPLE #	GAL4+pA	VP16+pA	pGene/lacZ	GAL4+p53+pA	VP16+T+pA	p53-VP16
1		0.26 μg	p 0.37 μg	p 0.37 μg	p 0.37 μg	
2		0.4 μg	p 0.3 μg	p 0.3 μg	p 0.3 μg	
3		0.4 μg				p 0.6 μg
4		0.4 μg	10.3 μg	10.3 μg	10.3 μg	
5		10.3 μg	0.4 μg	10.3 μg	10.3 μg	
6	10.3 μg		0.4 μg			
7		0.4 μg	4.5 μl PCR	4.5 μl PCR	4.5 μl PCR	
8		4.5 μl PCR	0.4 μg	4.5 μl PCR	4.5 μl PCR	
9	4.5 μl PCR		0.4 μg			4.5 μl PCR

MAMMALIAN TWO-HYBRID

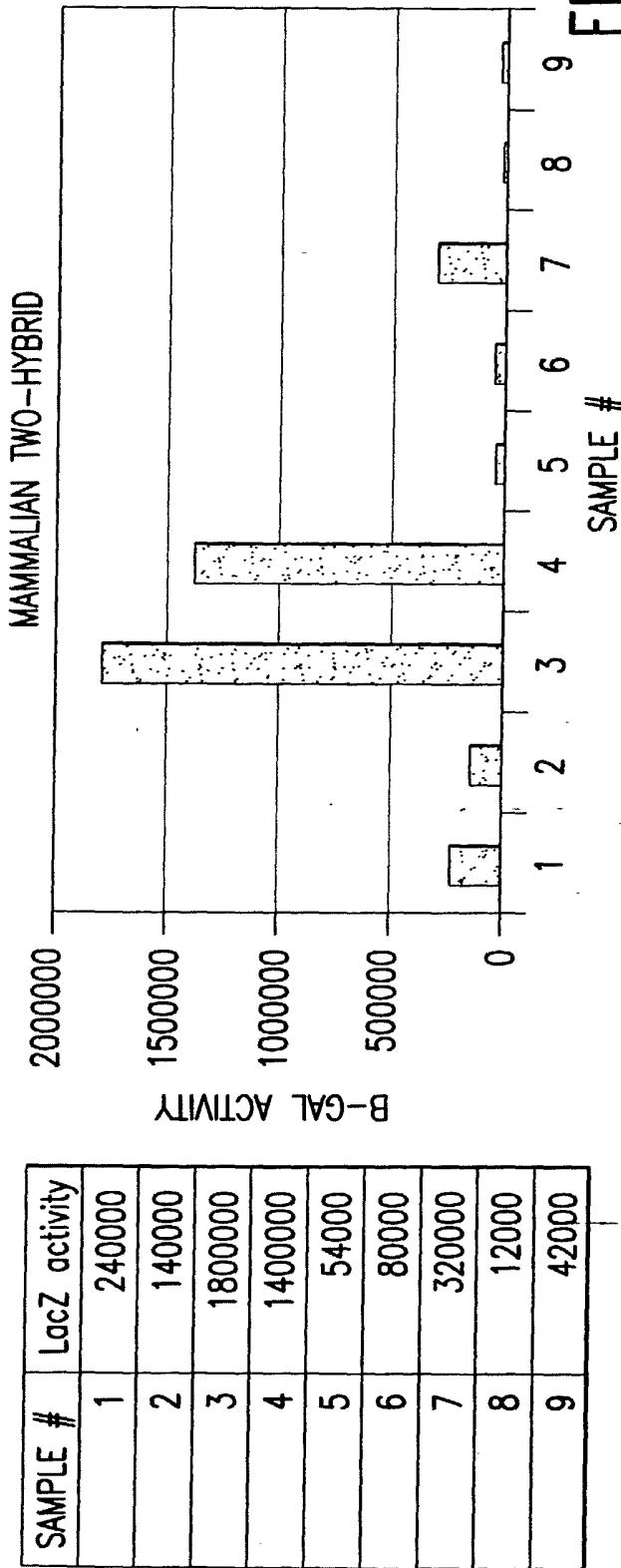


FIG. 10B

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FIG. 11A

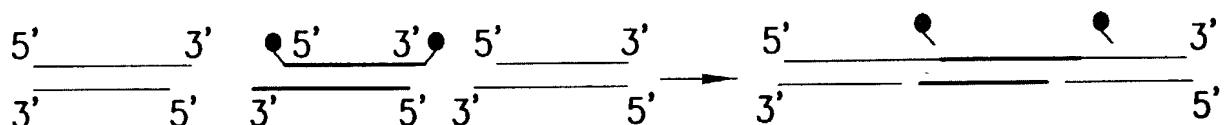


FIG. 11B

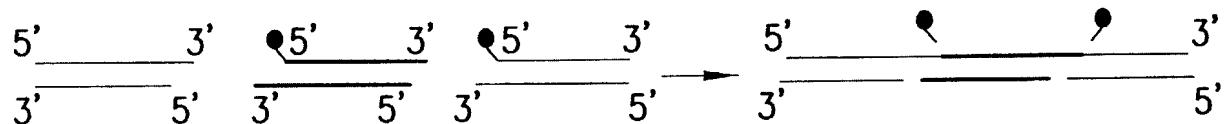


FIG. 11C

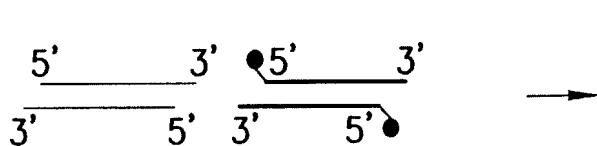


FIG. 11D

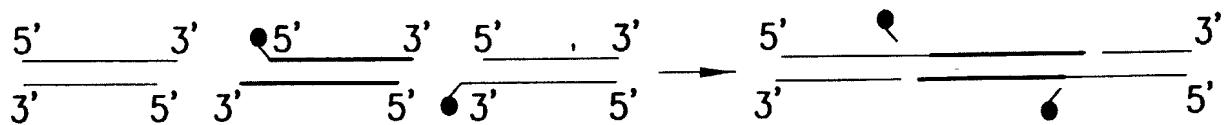
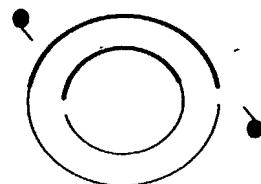


FIG. 11E

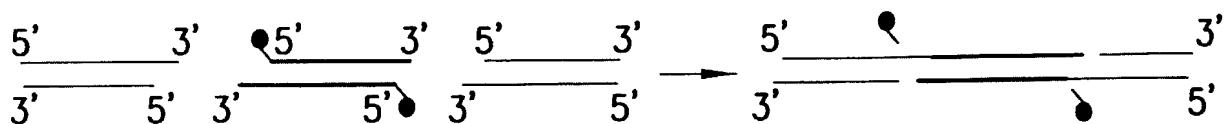


FIG. 11F

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FIG. 12A



FIG. 12B



FIG. 12C

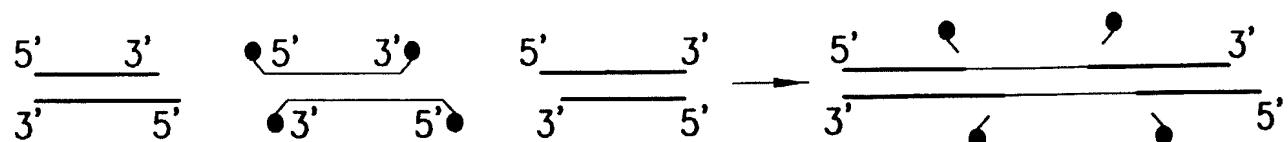


FIG. 12D

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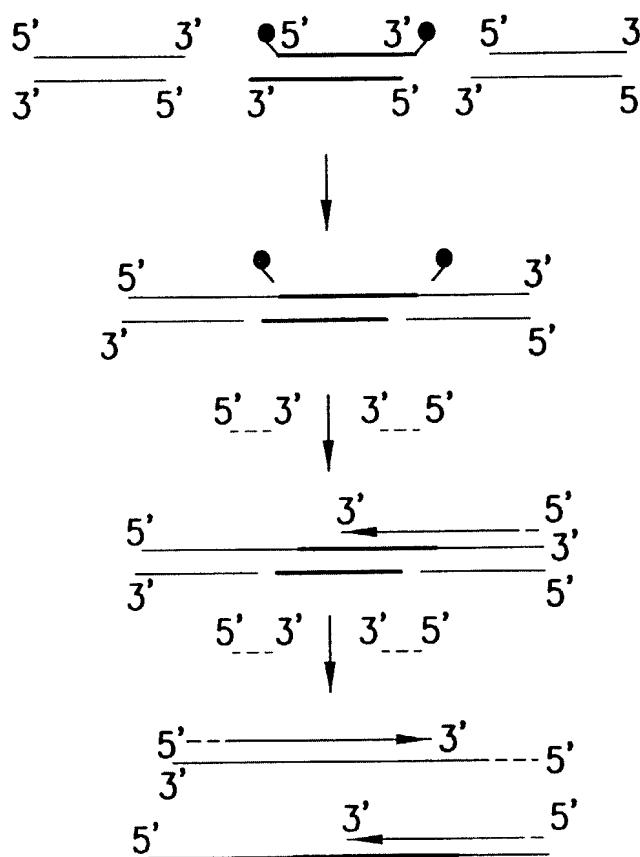


FIG. 13

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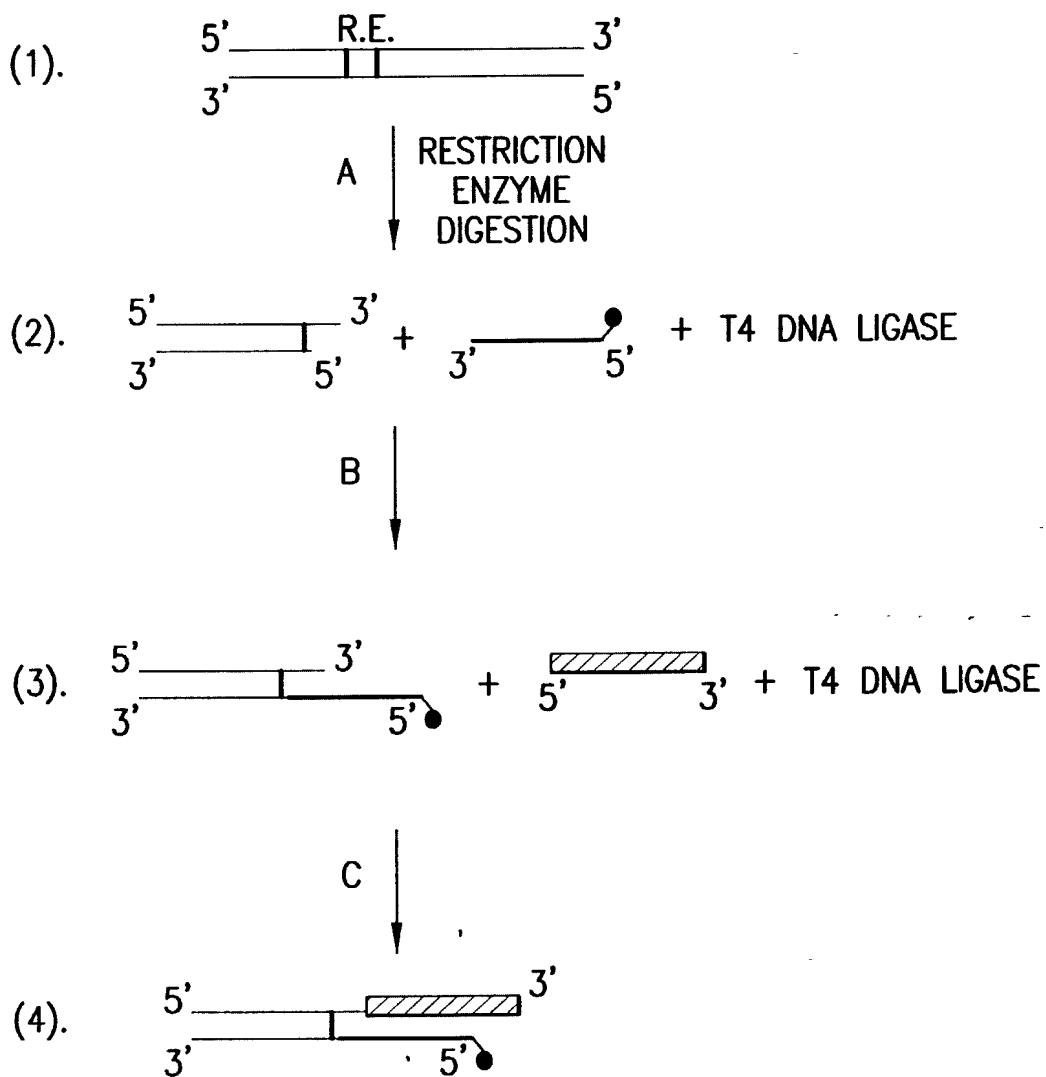


FIG. 14

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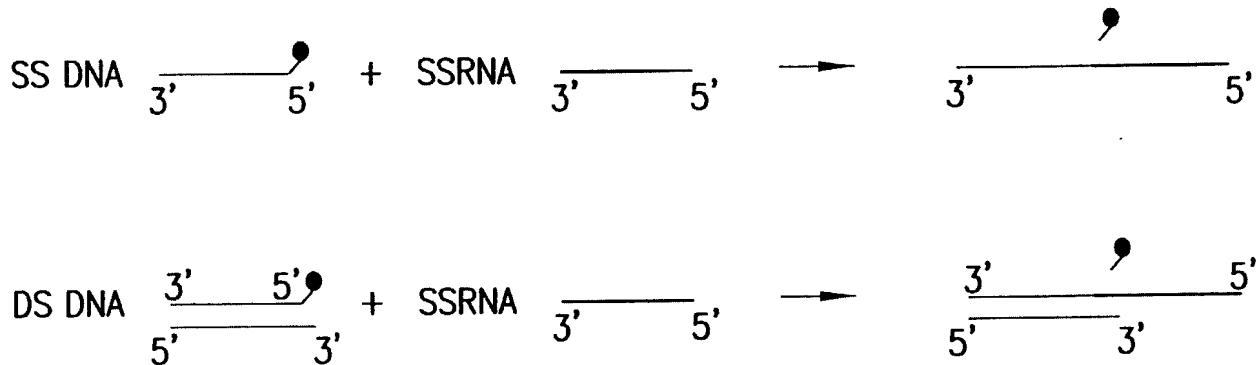


FIG. 15

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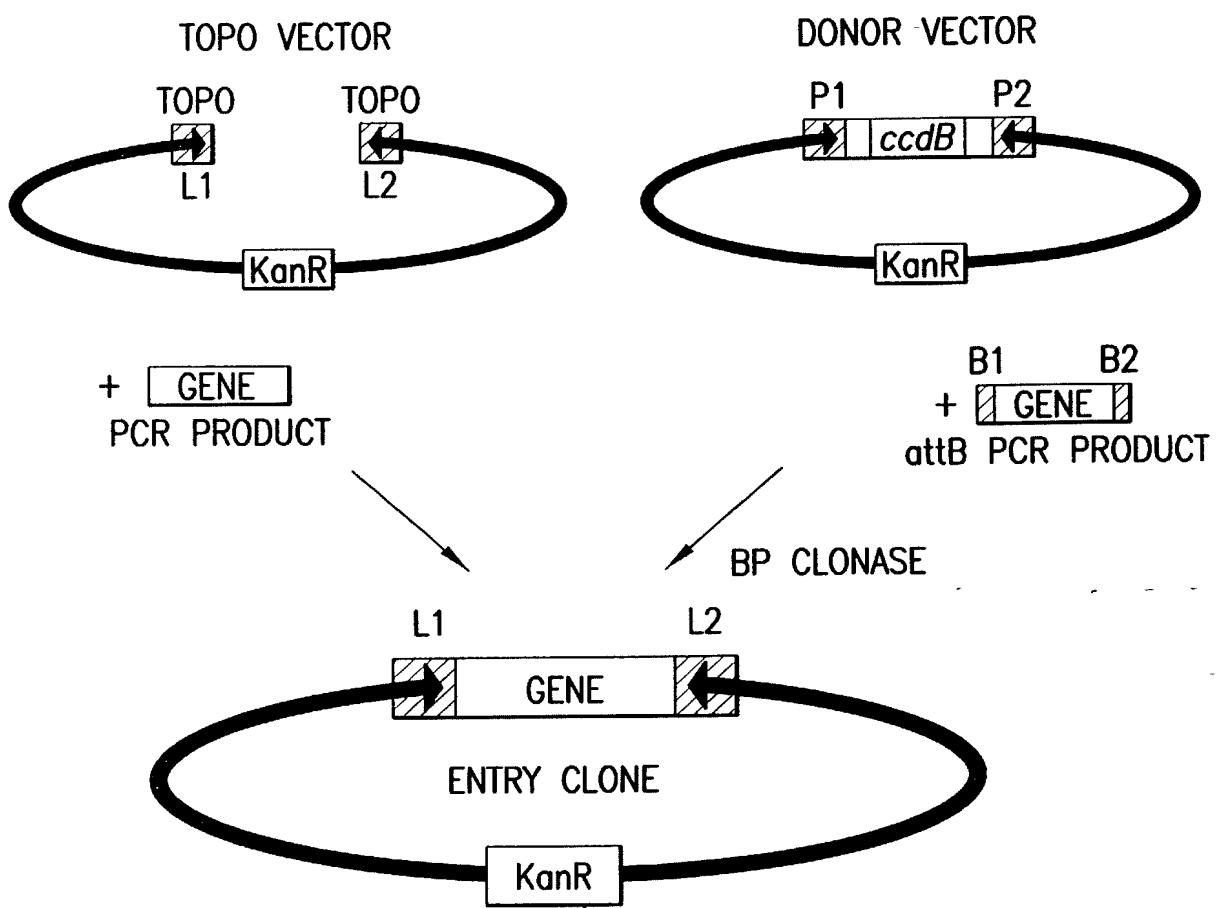


FIG. 16

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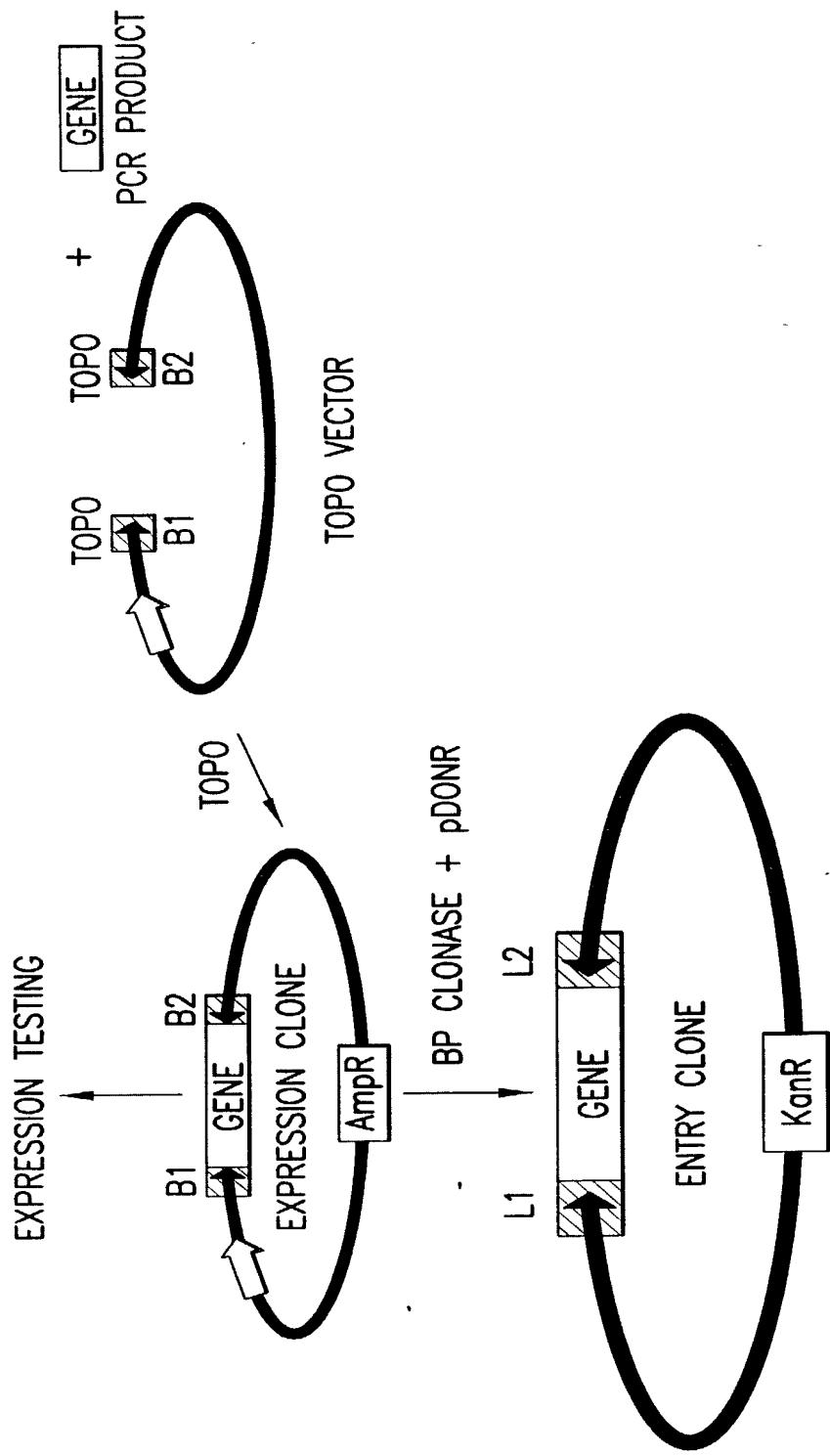


FIG. 17

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 MCS FOR pcDNAGW-DT(sc) AND pENTR-DT(sc)
 

---

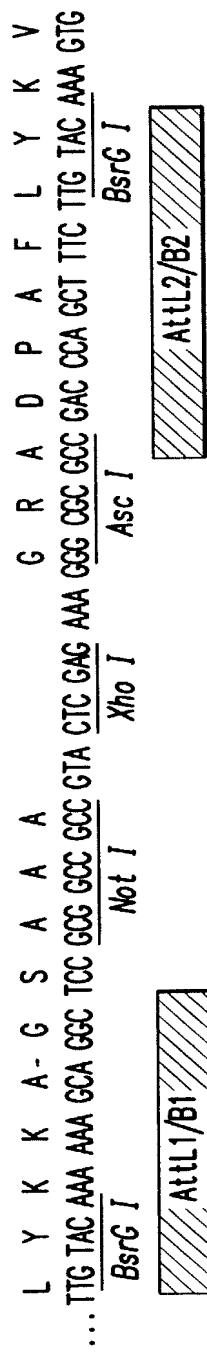


FIG. 18

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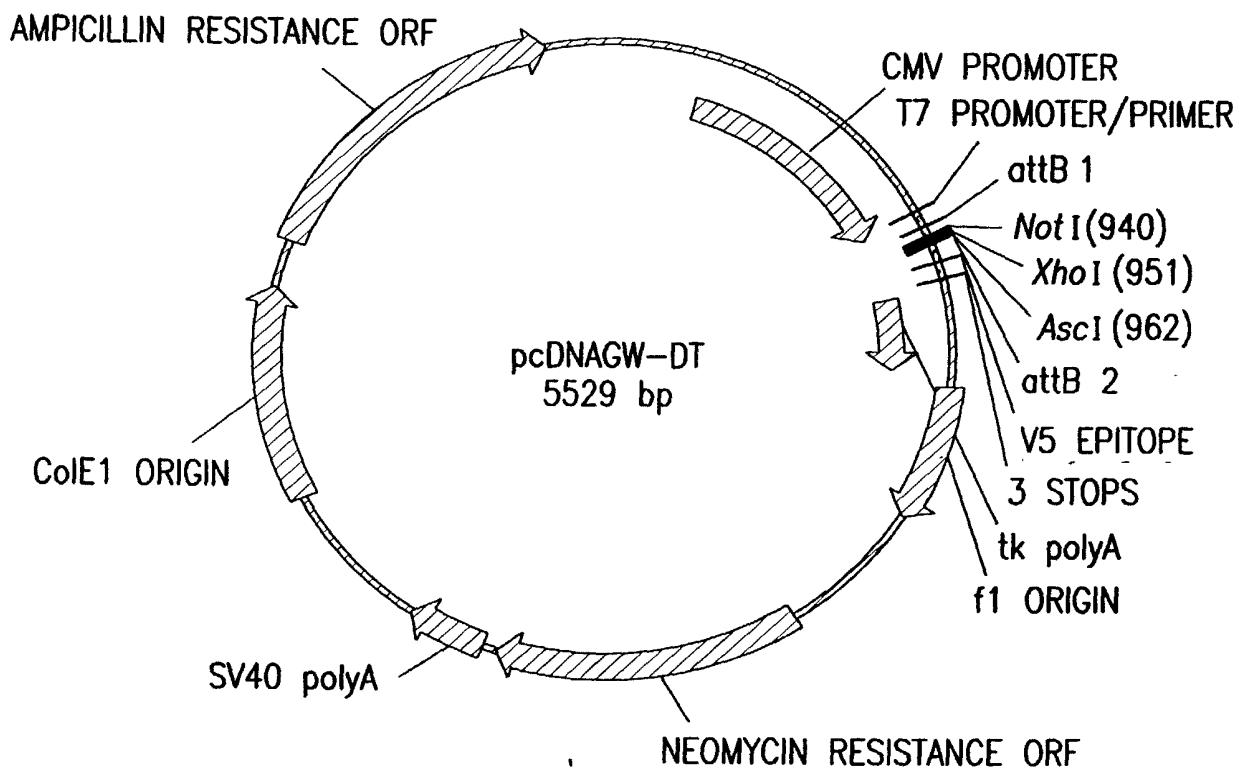


FIG. 19

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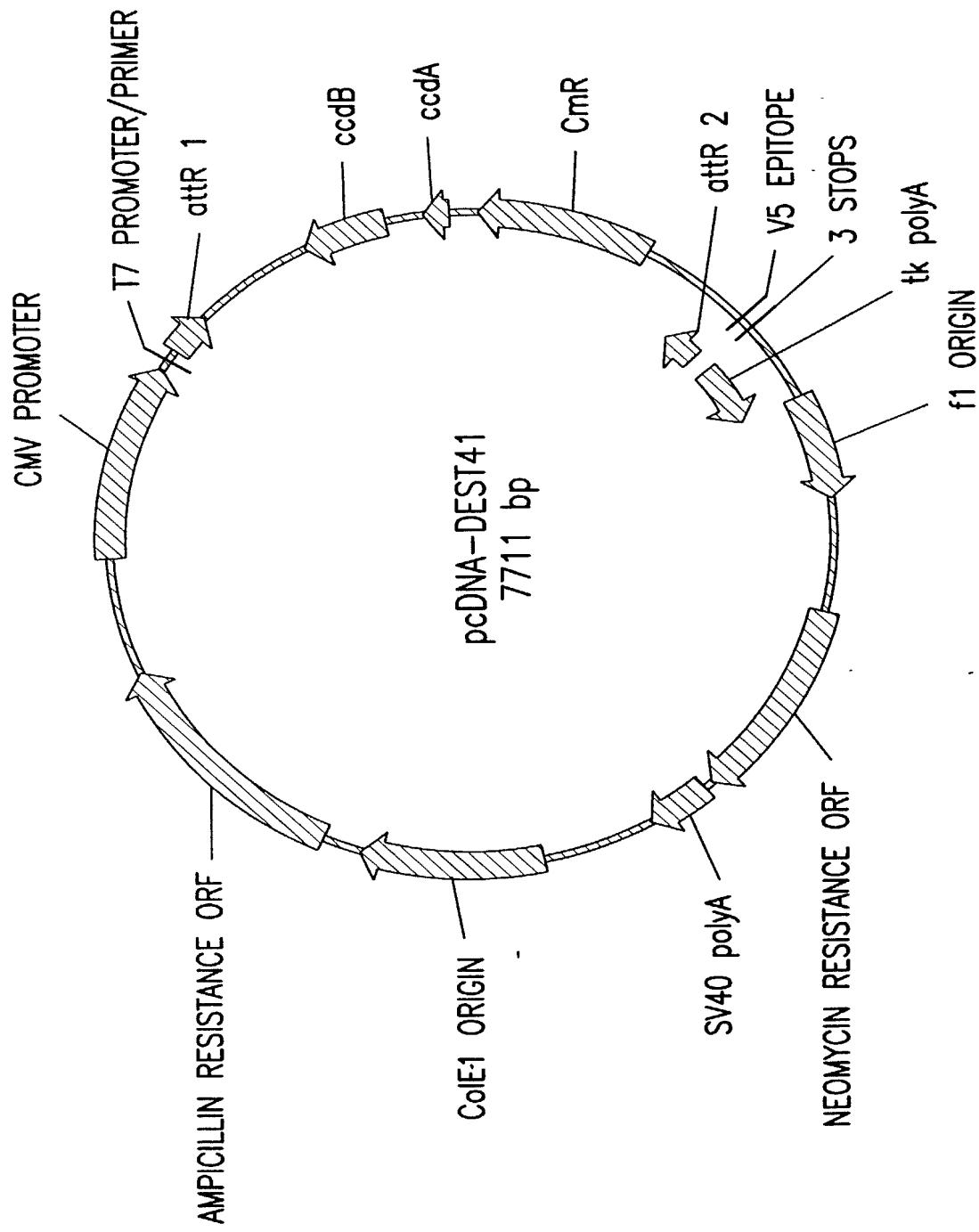


FIG. 20

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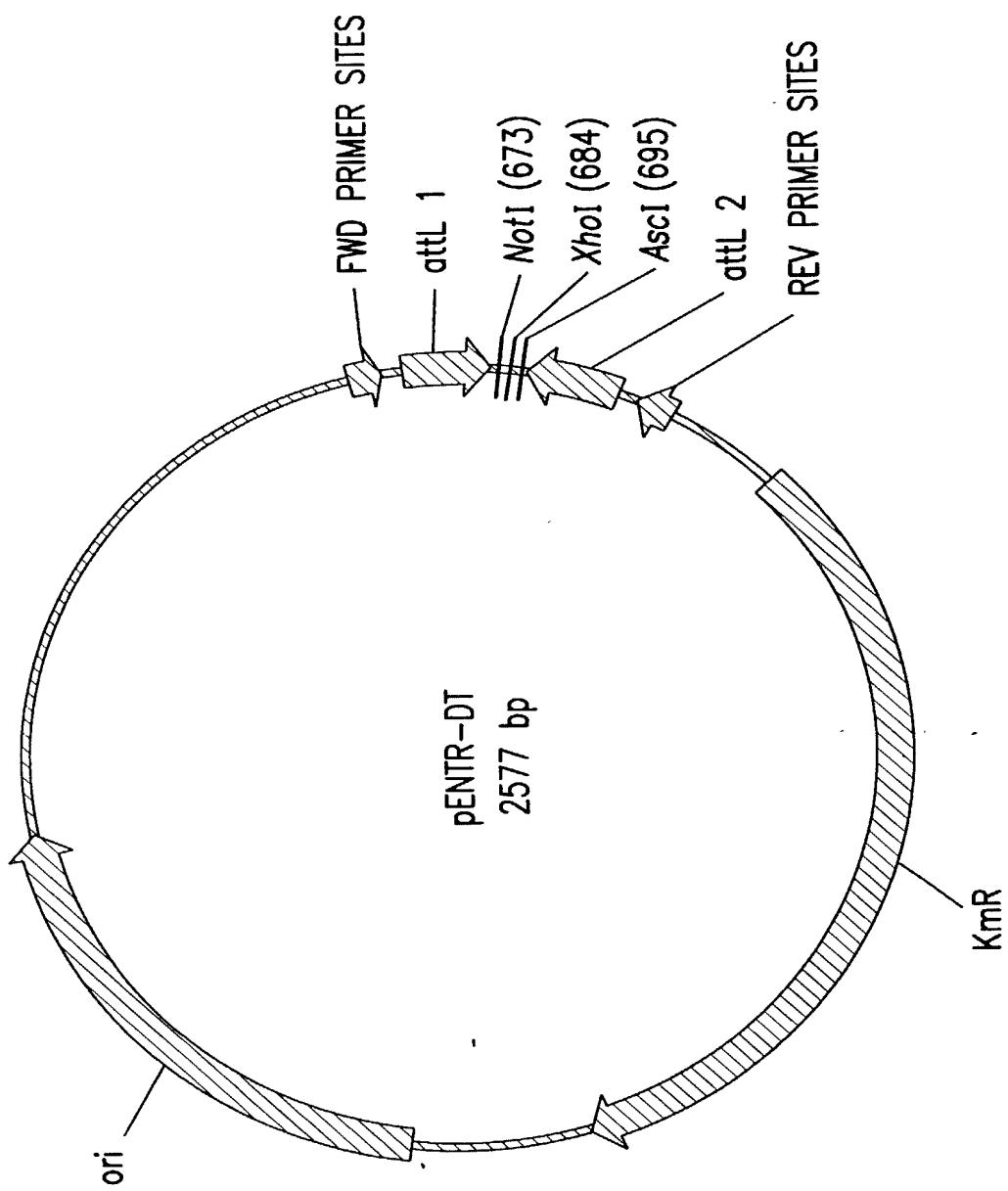


FIG. 21

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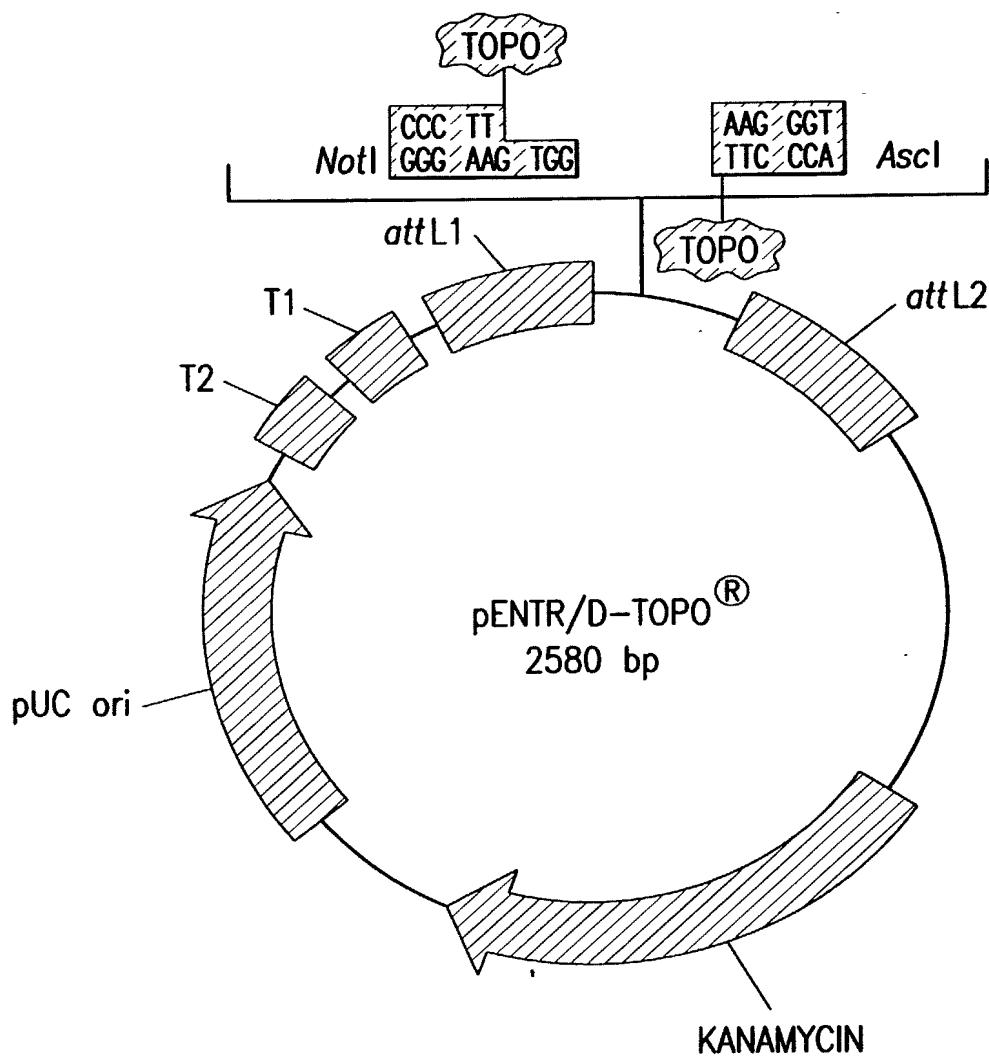


FIG. 22A

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```

1 ctttcctgcg ttatcccgtt attctgtgga taaccgtatt accgccttg agtgagctga
61 taccgctcgc cgccggaa cgaccgagcg cagcgagtca gtgagcgagg aagcggaga
121 gcgcggataa cgaaaccgc ctctccccgc gcgttggccg attcattaat gcagctggca
181 cgacagggtt cccgaactgga aagcgggcag tgagcgcaac gcaattaata cgcttacccgc
241 tagccaggaa gagttttagt aaacgcaaaa aggccatccg tcaggatggc cttctgctta
301 gtttcatgcc tggcagttt tggcggcgt cctgcccggc accctccggg ccgttgcctc
361 aacaacgttca aatccgctcc cggcggattt gtcctactca ggagagcggtt caccgacaaa
421 caacagataa aacgaaaggc ccagtcttcc gactgagcct ttcgttttat ttgatgcctg
481 gcagttccct actctcgctg taacgcttagc atggatgttt tcccaagtac gacgttgtaa
541 aacgacggcc agtcttaagc tcgggccccca aataatgatt ttatTTTgac tgatagtgac
601 ctgttcgttg caacaatttgc atgagcaatg ctttttata atgccaactt tgtacaaaaaa
661 agcaggctcc gcggccggcc cttcaccatg nnnnnnnnnna agggtggcgc cgccgaccca
721 gctttcttgt acaaagttgg cattataaga aagcattgt tatcaatttgc ttgcaacgaa
781 caggtcacta tcagtcaaaaa taaaatcatt atttgcacatc cagctgatat cccctatagt
841 gagtcgtatt acatggtcat agctgttcc tggcagctct ggcccggtc tcaaaatctc
901 tggatgttaca ttgcacaaga taaaatata tcacatgaa caataaaaact gtctgcctac
961 ataaaacagta atacaagggg tggtatgac catattcaac gggaaacgtc gaggccgcga
1021 ttAAATTCCA acatggatgc tgattttat gggtataaat gggctcgca taatgtcggt
1081 caatcagggtg cgacaatcta tcgcttgcattt gggaaagcccg atgcgccaga gttgttctg
1141 aaacatggca aaggtagcgt tgccaatgtat gttacagatg agatggtcg actaaactgg
1201 ctgacggaat ttatgcctct tccgaccatc aagcatttttgc tccgtactcc tgatgtgca
1261 tggttactca ccactgcgtat ccccgaaaaa acagcattcc aggtattaga agaatatcct
1321 gattcagggtg aaaatattgt tgatgcgtg gcagtgttcc tgcgcgggtt gcattcgatt
1381 cctgtttgtt attgtccttt taacagcgat cgcgtatttc gtctcgctca ggcgaatca
1441 cgaatgaata acgggttggt tgatgcgtat gattttgtat acgagcgtaa tggctggcct
1501 gttgaacaag tctggaaaga aatgcataaa ctttgcattt tctcaccggc ttcaagtgc
1561 actcatgggtt atttctcaact tgataacctt atttttgacg agggaaaatt aatagggtgt
1621 attgatgttgc gacgagtcgg aatcgcagac cgataccagg atcttgcattt cctatggAAC
1681 tgcctcggtt agtttctcc ttcatcagaa aacggctttt ttcaaaaata tggattgtat
1741 aatcctgata tgaataaatt gcagttcat ttgatgcgtt atgagttttt ctaatcagaa
1801 ttggtaatt ggtttaaca ctggcagagc attacgctga cttgacggga cggcgcaagc
1861 tcatgaccaa aatcccttaa cgtgagttac gcgtcggttcc actgagcgtc agaccccgta
1921 gaaaagatca aaggatctt tcgatgcgtt tttttctgc gcgtaatctg ctgcttgca
1981 acaaaaaaaaac caccgctacc agcgggtgtt tgtttgcgg atcaagagct accaactctt
2041 tttccgaagg taactggctt cagcagagcg cagataccaa atactgtct tctagtgttag
2101 ccgttagttttag gccaccactt caagaactct gtacgcaccgc ctacataacct cgctctgcta
2161 atccctgttac cagtggtcgc tgccagtggc gataagtctt gtcttaccgg gttggactca
2221 agacgatagt taccggataa ggcgcagcgg tcgggctgaa cgggggggttc gtgcacacag
2281 cccagcttgg agcgaacgc ac cttacaccgg ctgagatacc tacagcgtga gcattgagaa
2341 agcgccacgc ttcccgaaagg gagaaggcg gacaggtatc cgtaagcgg cagggtcgga
2401 acaggagagc gcacgaggaa gcttccaggg ggaaacgcctt ggtatcttta tagtcgtc
2461 gggtttcggcc acctctgact tgagcgtca tttttgtat gctcgtcagg gggggggggc
2521 ctatggaaaaa acgcccacaa cgcggccctt ttacgggttcc tggccttttgc ctggcctttt
2581 gtcacatgt t

```

FIG.22B

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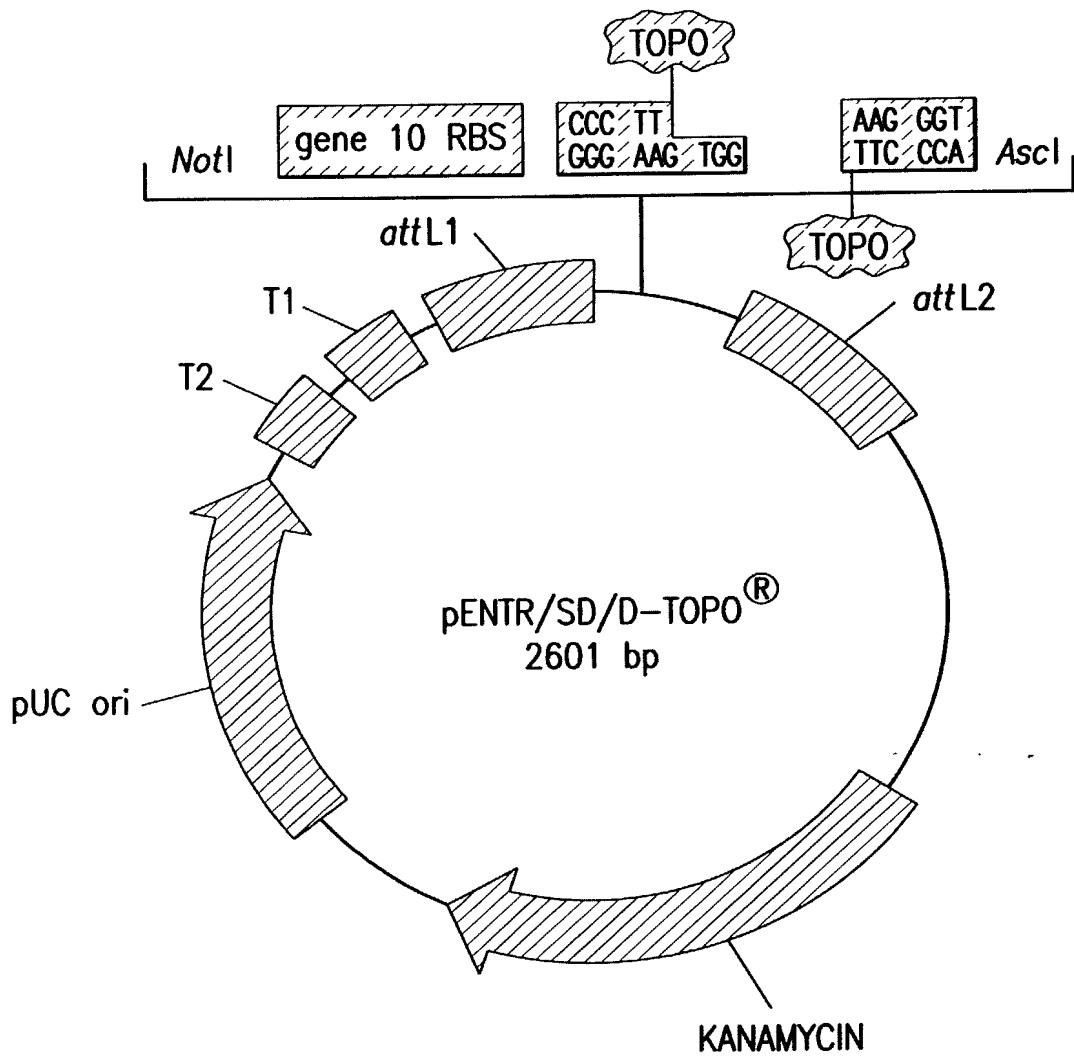


FIG. 23A

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1 ctttcctgctt  
 61 taccgctcgc cgccggaa cgaccgagcg cagcgactca gtgagcgagg aagcggaaga  
 121 gcgcccaata cgcaaacccgc ctctccccgc gcgttggccg attcattaat gcagctggca  
 181 cgacagggtt cccgactgga aagcgggcag tgagcgcaac gcaattaata cgcgtaccgc  
 241 tagccaggaa gagttttag aAACGCAAAA aggccatccg tcaggatggc cttctgctta  
 301 gtttgatgcc tggcagttt tggcgggcgt cctgcccgc accctccggg ccgttgcttc  
 361 aacaacgttca aatccgctcc cggcggattt gtcctactca ggagagcggtt caccgacaaa  
 421 caacagataa aacgaaaggc ccagtcttcc gactgagcct ttgcgtttat ttgatgcctg  
 481 gcagttccct actctcgctg taacgcttagc atggatgttt tcccaagtac gacgttgtaa  
 541 aacgacggcc agtcttaagc tcgggccccca aataatgatt ttatTTGAC tgatagtgac  
 601 ctgttcgttgc caacaaattt atgagcaatg ctttttata atgccaactt tgtacaaaaaa  
 661 agcaggctcc gccggccct tggtaactt taagaaggag cccttcaccc nnnnnnaaggg  
 721 tggcgcgc gacccagctt tcttgcataa agttggcatt ataagaaagc attgcttata  
 781 aatttgttgc aacgaacagg tcactatcag tcaaaaataaa atcatttattt gccatccagc  
 841 tggatccccc tatagtgagt cgtattacat ggtcatagct gtttcctggc agctctggcc  
 901 cgtgtctcaa aatctctgat gttacattgc acaagataaa aatatatcat catgaacaat  
 961 aaaactgtct gcttacataa acagtaatac aagggggttt atgagccata ttcaacggga  
 1021 aacgtcgagg ccgcgattaa attccaaacat ggatgctgat ttatatgggt ataaatgggc  
 1081 tcgcpataat gtcggcaat caggtgcgc aatctatcgc ttgtatggga agcccgatgc  
 1141 gccagagttt tttctgaaac atggcaaaagg tagcgttgc aatgtatgtt cagatgagat  
 1201 ggtcagacta aactggctga cggaaatttat gcctcttccg accatcaagc attttatccg  
 1261 tactcctgat gatgcattgt tactcaccac tgcgatcccc gaaaaaaacag cattccaggt  
 1321 attagaagaa tatcctgatt caggtaaaaa tattgttgc ggcgtggcag tggcgttgc  
 1381 ccgggttgcatt tcgatttccg tttgtatttgc tcccttttac agcgatcgcg tatttcgtct  
 1441 cgctcaggcg caatcacgaa tgaataacgg tttgggttgc ggcgttgatt ttgatgacga  
 1501 gcgtaatggc tggcctgtt aacaagtctg gaaagaaaatg cataaaacttt tgccattctc  
 1561 accggattca gtcgtcactc atggtgattt ctcacttgc aaccttattt ttgacgaggg  
 1621 gaaattaata ggttgtatttgc atgttggacg agtcggaaatc gcagaccgat accaggatct  
 1681 tgccatccta tggactgcc tcgggtgat ttctccttca ttacagaaac ggcttttca  
 1741 aaaatatggt attgataatc ctgatatgaa taaattgcag tttcatttgc tgctcgatga  
 1801 gttttctaa tcagaattgg ttaattgggtt gtaacactgg cagagcatta cgctgacttg  
 1861 acgggacggc gcaagctcat gaccaaaatc ccttaacgtg agttacgcgt cgttccactg  
 1921 agcgtcagac cccgtagaaa agatcaaagg atcttcttgc gatcctttt ttctgcgcgt  
 1981 aatctgctgc ttgcaaaacaa aaaaaccacc gctaccagcg gtggtttgc tgccgatca  
 2041 agagctacca actcttttc cgaaggtaac tggcttcagc agagcgcaga taccaataac  
 2101 tggccttcta gtgttagccgt agttaggcca ccacttcaag aactctgttag caccgcctac  
 2161 atacctcgct ctgctaattcc tggtaaccatg ggtctgtgc agtggcgata agtcgtgtct  
 2221 taccgggttgc gactcaagac gatagttacc ggataaggcg cagcggtcgg gctgaacggg  
 2281 gggttcgtgc acacagccca gcttggagcg aacgacccatc accgaactga gataacctaca  
 2341 gcgtgagcat tgagaaagcg ccacgcttcc cgaaggggaga aaggcggaca ggtatccggt  
 2401 aagcggcagg gtcggaacag gagagcgcac gagggagcctt ccagggggaa acgcctggta  
 2461 tctttatagt cctgtcggtt ttcgcccacccctt ctgacttgc gtcgatTTT tggatgtgc  
 2521 gtcagggggg cggagcctat gggaaaaacgc cagcaacgcg gccttttac gtttcctggc  
 2581 cttttgttgc cttttgttc acatgtt

FIG.23B

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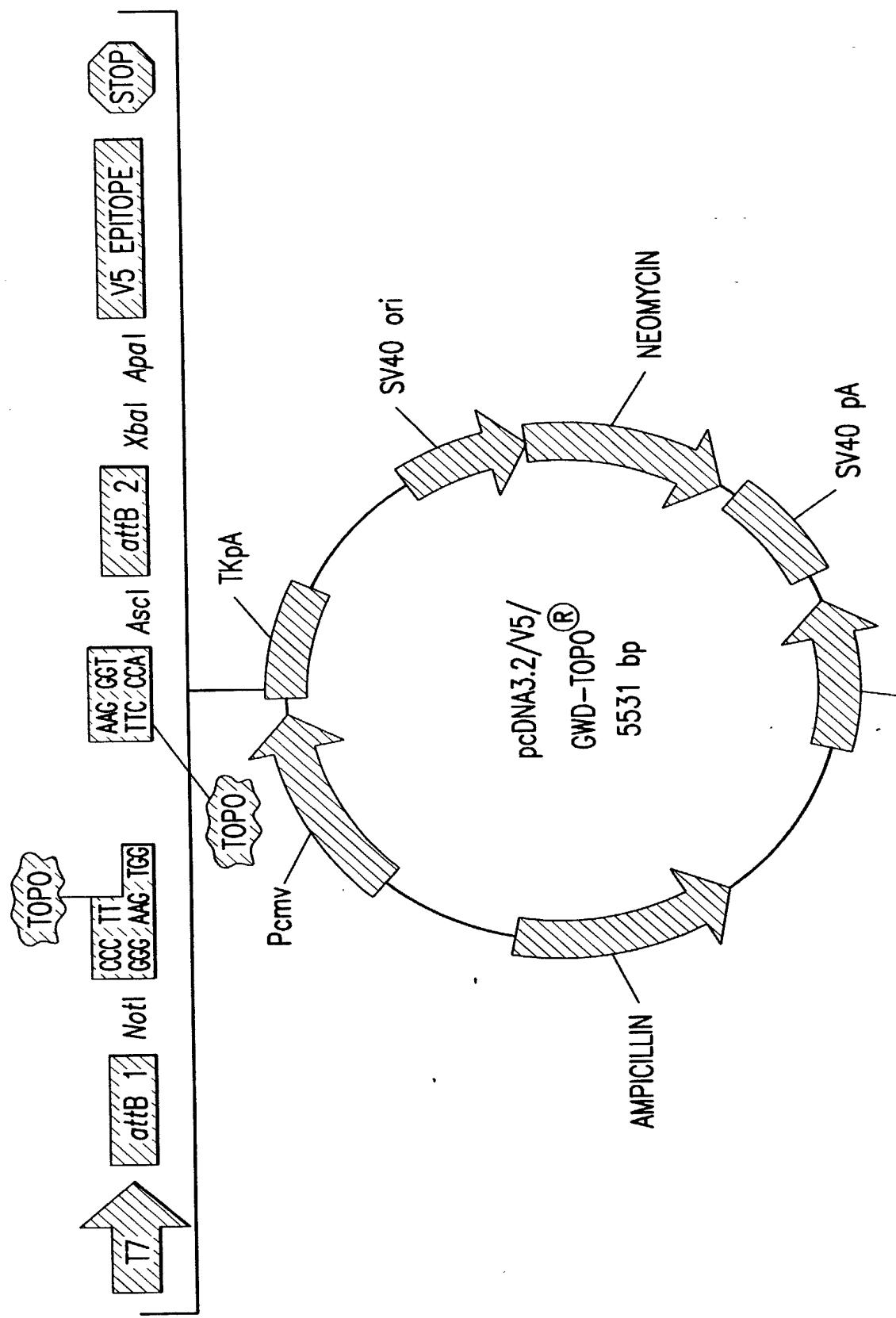


FIG. 24A

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1 gacggatcgg gagatctccc gatccccat ggtcgactct cagtacaatc tgctctgatg  
 61 ccgcatagtt aagccagtat ctgctccctg ctttgtgttt ggaggcgct gagtagtgcg  
 121 cgagcaaaat ttaagctaca acaaggcaag gcttggaccga caattgcatt aagaatctgc  
 181 ttagggtag gcgtttgcg ctgcttcgcg atgtacgggc cagatatacg cgttgacatt  
 241 gattattgac tagtattaa tagtaatcaa ttacggggtc attagttcat agcccatata  
 301 tggagttccg cgttacataa cttacggtaa atggccgcgc tggctgaccg cccaacgacc  
 361 ccccccatt gacgtcaata atgacgtatg ttcccatagt aacccaata gggactttcc  
 421 attgacgtca atgggtggac tatttacggt aaactgccc cttggcagta catcaagtgt  
 481 atcatatgcc aagtacgccc cctattgacg tcaatgacgg taaatggccc gcctggcatt  
 541 atgcccagta catgaccta tggactttc ctacttggca gtacatctac gtattagtca  
 601 tcgcattttac catggatg cggtttggc agtacatcaa tggcgttga tagcggtttg  
 661 actcacgggg atttccaagt ctccacccca ttgacgtcaa tggaggttg ttttggcacc  
 721 aaaatcaacg ggactttcca aatgtcgta acaactccgc cccattgacg caaatggcg  
 781 gtaggcgtgt acgggtggag gtctatataa gcagagctct tggctaact agagaaccca  
 841 ctgcttactg gcttatcgaa attaatacga ctcactatag ggagacccaa gctggctagt  
 901 taagctatca acaagttgt aaaaaaaaaaaggc aggctccgcg gccgcctt caccatgnnn  
 961 nnnnnnaagg gtggcgcgc cgacccagct ttcttgtaca aagtgggtga tctagaggc  
 1021 cccgggttcg aaggtaagcc tatccctaac cctctcctcg gtctcgattc tacgcgtacc  
 1081 ggttagtaat gagtttaaac gggggaggct aactgaaaca cggaaggaga caataccgga  
 1141 aggaacccgc gctatgacgg caataaaaaag acagaataaa acgcacgggt gttggcgt  
 1201 ttgttcataa acgcgggggtt cggtcccagg gctggactc tgtcgatacc ccaccgagac  
 1261 cccattgggg ccaatacgcc cgcgtttttt ccttttcccc accccacccc ccaagttcgg  
 1321 gtgaaggccc agggctcgca gccaacgtcg gggcggcagg ccctgcccata gcagatctgc  
 1381 gcagctgggg ctctaggggg tatccccacg cgccctgttag cggcgcatta agcgcggcgg  
 1441 gtgtgggtgt tacgcgcagc gtgaccgcta cacttgccag cgcctagcg cccgctcctt  
 1501 tcgctttttt cccttcctt ctcgccacgt tcgcccgtt tccctgtcaa gctctaaatc  
 1561 ggggcatccc tttaggggtc cgatttagtgc tttagggca cctcgacccc aaaaaacttg  
 1621 attagggtga tggttcacgt agtggccat cgccctgata gacggttttt cgccttttga  
 1681 cgttggagtc cacgttcttt aatagtggac tcttgttcca aactggaaaca acactcaacc  
 1741 ctatctcggt ctattttttt gatttataag ggattttggg gatttcggcc tattgttaa  
 1801 aaaatgagct gatttaacaa aaatttaacg cgaattaatt ctgtggatg tgtgtcagtt  
 1861 aggggtgtgg aagtcccccag gctccccagc aggcagaagt atgcaaagca tgcatactcaa  
 1921 ttagtcagca accaggtgtg gaaagtccccc aggctccca gcaggcagaa gtatgcaaag  
 1981 catgcacatc aattagttag cAACCCATAGT CCCGCCCCTA ACTCCGCCA TCCCAGCCCT  
 2041 aactccgccc agttccgccc attctccgccc ccatggctga ctaatTTTTT TTATTATGC  
 2101 agaggccgag gcccctctg cctctgagct attccagaag tagtgaggag gcttttttgg  
 2161 aggccttaggc ttttgcaaaaa agctccggg agcttgtata tccatTTTCG gatctgatca  
 2221 agagacagga tgaggatcgt ttgcgtatgat tgaacaagat ggattgcacg caggttctcc  
 2281 gggcgttgg gtggagaggc tattcggcta tgactggca caacagacaa tcggctgctc  
 2341 ttagccgccc gtgtccggc tgcagcgca gggcgcccc gtttttttgc tcaagaccga  
 2401 cctgtccggc gcccgtatg aactgcagga cgaggcagcg cggtatcggt ggctggccac  
 2461 gacgggcgtt cttgcgcagc ctgtgctcgat cgttgcact gaagcgggaa gggactggct  
 2521 gctattgggc gaagtgcgg ggcaggatct cctgtcatct cacccgtctc ctggccagaa  
 2581 agtatccatc atggctgtatg caatgcggcg gctgcatacg ctggatccgg ctacccgtcc  
 2641 attcgaccac caagcgaaac atcgcatcgat gcgagcacgt actcggatgg aagccgtct  
 2701 ttagtcagcatg gatgtatcgatc acgaagagca tcaggggtc gcggcagccg aactgttcgc  
 2761 caggctcaag gcgccatgc ccgacggcgaa ggtctcgatc gtgacccatg gcgatgcctg-

FIG.24B

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2821 cttgccgaat atcatggtgg aaaatggccg ctttctgga ttcatcgact gtggccggct  
 2881 ggggtgtggcg gaccgctatc aggacatagc gttggctacc cgtgatattg ctgaagagct  
 2941 tggcggcgaa tgggtgtacc gcttcctcggt gctttacggt atcgccgctc ccgattcgca  
 3001 ggcgcattcgcc ttctatcgcc ttcttgacga gttcttctga gcgggactct ggggttcgcg  
 3061 aaatgaccga ccaagcgacg cccaaacctgc catcacgaga tttcgattcc accgcccgcct  
 3121 tctatgaaag gttgggcttc ggaatcgttt tccgggacgc cggctggatg atcctccagc  
 3181 gcggggatct catgctggag ttcttcgccc accccaactt gtttattgca gcttataatg  
 3241 gttacaaata aagcaatagc atcacaattt tcacaaataa agcattttt tcactgcatt  
 3301 ctagttgtgg tttgtccaaa ctcatcaatg tatcttatca tgtctgtata ccgtcgacct  
 3361 ctagctagag cttggcgtaa tcatggtcat agctgtttcc tgtgtgaaat tggtatccgc  
 3421 tcacaattcc acacaacata cgagccggaa gcataaaatg taaaggctgg ggtgcctaatt  
 3481 gagtgagcta actcacatta attgcgttgc gctcaactgccc cgctttccag tcgggaaacc  
 3541 tgcgtgcca gctgcattaa tgaatcgcc aacgcgcggg gagaggcggt ttgcgtattg  
 3601 ggcgctttc cgcttcctcg ctcaactgact cgctgcgcctc ggtcgttcgg ctgcggcag  
 3661 cggtatcgc tcactcaaag gcgtaatac gtttatccac agaatcaggg gataacgcag  
 3721 gaaagaacat gtgagcaaaa ggccagcaaa aggccaggaa ccgtaaaaag gccgcgttgc  
 3781 tggcgttttt ccataggctc cgccccctg acgagcatca caaaaatcga cgctcaagtc  
 3841 agaggtggcg aaacccgaca ggactataaa gataccaggg gtttccccct ggaagctccc  
 3901 tcgtgcgctc tcctgttccg accctggcgc ttaccggata cctgtccgccc ttctccctt  
 3961 cggaaagcgt ggcgctttct caatgctcac gctgttaggtt tctcagttcg gtgttagtgc  
 4021 ttcgctccaa gctggctgt gtgcacgaac ccccccgttca gcccgcaccgc tgcccttat  
 4081 ccgttaacta tcgtcttgag tccaacccgg taagacacga cttatcgcca ctggcagcag  
 4141 ccactggtaa caggattagc agagcgaggt atgttagggcg tgctacagag ttcttgaagt  
 4201 ggtggctaa ctacggctac actagaagga cagtattttg tatctgcgt ctgctgaagc  
 4261 cagttacctt cggaaaaaga gttggtagct cttgatccgg caaacaacc accgctggta  
 4321 gccgtggttt ttttgggtc aagcagcaga ttacgcgcag aaaaaagga tctcaagaag  
 4381 atcctttgat cttttctacg gggctgacg ctcagtggaa cgaaaaactca cgtaaggga  
 4441 ttttggtcat gagattatca aaaaggatct tcaccttagat ccttttaaat taaaaatgaa  
 4501 gttttaaattc aatctaaatg atatatgagt aaacttggtc tgacagttac caatgcttaa  
 4561 tcagtgggc acctatctca gcgatctgtc tatttcgttc atccatagtt gcctgactcc  
 4621 ccgtcggtta gataactacg atacgggagg gcttaccatc tggccccagt gctgcaatga  
 4681 taccgcgaga cccacgctca cccgctccag atttatcagc aataaaccag ccagccggaa  
 4741 gggccgagcg cagaagtggt cctgcaactt tatccgcctc catccagtct attaattgtt  
 4801 gccgggaagc tagagtaatg agttcggcag ttaatagtt ggcgaacgtt gttgcattg  
 4861 ctacaggcat cgtgtgtca cgctcggtt ttggatggc ttcattcagc tccgggttccc  
 4921 aacgatcaag gcgagttaca tggatccccca tggatggc aaagcgggtt agctccttcg  
 4981 gtcctccgat cggtgtcaga agtaagggtt ccgcagttt atcactcatg gttatggcag  
 5041 cactgcataa ttctcttact gtcatgccat ccgtaaatgt ctttctgtg actggtagt  
 5101 actcaaccaa gtcattctga gaatagtgtt tgccggcacc gagttgtct tggccggcgt  
 5161 caatacggga taataccgcg ccacatagca gaactttaaa agtgcgtatc attggaaaac  
 5221 gttcttcggg gcgaaaaactc tcaaggatct taccgctgtt gagatccagt tcgatgtaac  
 5281 ccactcggtc acccaactga tcttcagcat ctttacttt caccagcggt tctgggttag  
 5341 caaaaacagg aaggcaaaa gcccggaaaa agggataaag ggcgacacgg aatgttga  
 5401 tactcatact cttccctttt caatattattt gaaatgttca tcagggttat tgtctcatga  
 5461 gcgatatacat atttgaatgt atttagaaaa ataaacaaat aggggttccg cgacatcc  
 5521 cccgaaaaagt gccacctgac gtc

FIG.24C

J 0 0 0 0 1 5 3 7 4 - 0 7 0 8 0 2

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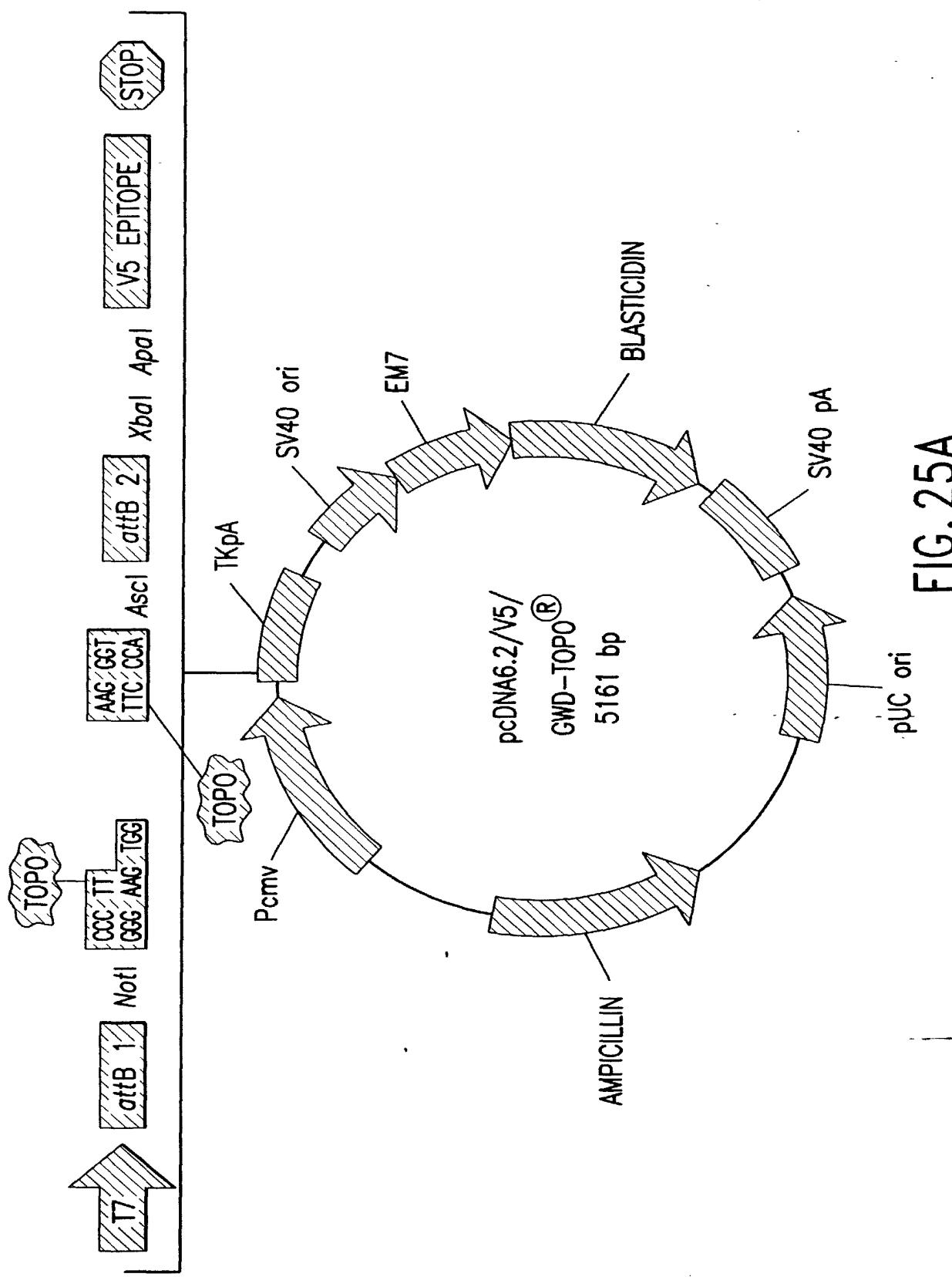


FIG. 25A

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1 gacggatcg gagatctccc gatcccstat ggtgcactct cagtacaatc tgctctgatg  
 61 ccgcatagtt aagccagtat ctgctccctg cttgtgtgtt ggaggtcgct gagtagtgcg  
 121 cgagcaaaat ttaagctaca acaaggcaag gcttgaccga caattgcatt aagaatctgc  
 181 ttagggtag gcgtttgcg ctgcttcgcg atgtacgggc cagatatacg cggtgacatt  
 241 gattattgac tagttattaa tagtaatcaa ttacgggtc attagttcat agccatata  
 301 tggagttccg cgttacataa cttacggtaa atggccgc tggctgaccg cccaacgacc  
 361 cccgccccatt gacgtcaata atgacgtatg ttcccatagt aacgccaata gggactttcc  
 421 attgacgtca atgggtggag tatttacggt aaactgccc cttggcagta catcaagtgt  
 481 atcatatgcc aagtacgccc cctattgacg tcaatgacgg taaatggccc gcctggcatt  
 541 atgcccagta catgacccta tgggactttc ctacttggca gtacatctac gtattagtca  
 601 tcgctattac catggtgatg cggtttggc agtacatcaa tgggctgttga tagcggtttg  
 661 actcacgggg atttcaagt ctccacccca ttgacgtcaa tggaggtttg tttggcacc  
 721 aaaatcaacg ggactttcca aaatgtcgta acaactccgc cccattgacg caaatggcg  
 781 gtaggcgtgt acgggtggag gtctatataa gcagagctt cttgcttaact agagaaccca  
 841 ctgcttactg gcttatcgaa attaatacga ctcactatag ggagacccaa gctggctagt  
 901 taagctatca acaagttgt acaaaaaaagc aggctccgcg gccgccccctt caccatgnnn  
 961 nnnnnnaagg gtggcgcgc cgacccagct ttcttgtaca aagtgggtga tctagaggc  
 1021 ccgcggttcg aaggttaagcc tatccctaac cctctccctcg gtctcgattc tacgcgtacc  
 1081 ggttagtaat gagtttaaac gggggaggct aactgaaaca cggaaggaga caataccgga  
 1141 aggaacccgc gctatgacgg caataaaaag acagaataaa acgcacgggt gttggcgt  
 1201 ttgttcataaa acgcggggtt cgggtccagg gctggcactc tgtcgatacc ccaccgagac  
 1261 cccattgggg ccaatacgcc cgcgttctt cctttcccc accccacccc ccaagttcg  
 1321 gtgaaggccc agggctcgca gccaacgtcg gggcggcagg ccctgcccata gcagatctgc  
 1381 gcagctgggg ctctaggggg tatccccacg cggccctgttag cggcgcattt agcgcggcgg  
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 1561 ggggcattccc tttaggggtt cgatttagt ctttacggca cctcgacccc aaaaaacttg  
 1621 attagggtga tggttcacgt agtggccat cggccgtata gacggttttt cggcccttga  
 1681 cgttggagtc cacgttctt aatagtggac tcttggcca aactggaaaca acactcaacc  
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 1801 aaaatgagct gatttaacaa aaatttaacg cgaattaatt ctgtggatg tgtgtcagtt  
 1861 aggtgtgga aagtccccag gctccccagc aggccagaat atgcaaaagca tgcatactcaa  
 1921 ttagtcagca accaggtgtg gaaagtccccc aggctccca gcaggcagaa gtatgaaag  
 1981 catgcatttc aattagtca caccatagt cccgcacca actccgcacca tcccgcaccc  
 2041 aactccgcac agttccgcac attctccgc ccatggctga ctaatttttt ttatttatgc  
 2101 agaggccgag gccgcctctg cctctgagct attccagaag tagtgaggag gctttttgg  
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 2221 gcacgtgtt acaattaatc atcggcatag tatatcgca tagtataata cgacaagggt  
 2281 agaactaaa ccatggccaa gcctttgtct caagaagaat ccaccctcat tgaaagagca  
 2341 acggctacaa tcaacagcat ccccatctt gaagactaca gcgtgcgcag cgcagctctc  
 2401 tctagcgacg gccgcatttc cactgggtc aatgtatatc attttactgg gggaccttgg  
 2461 gcagaactcg tgggtgtgg cactgctgt gctgcggcag ctgcaacct gacttgtatc  
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 2701 ggcgcaggag caggactgac acgtgtacg agatttcgtat tccaccgcgc ccttcttatga  
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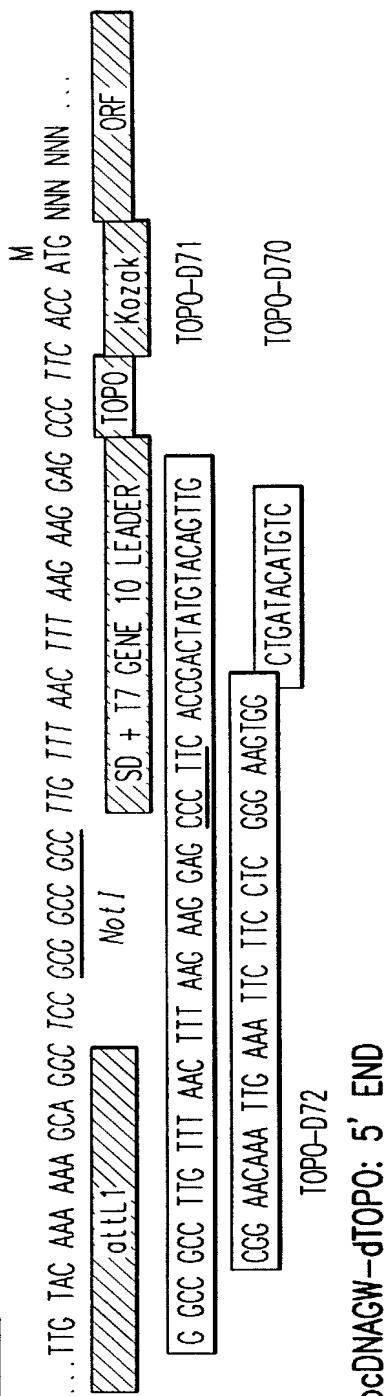
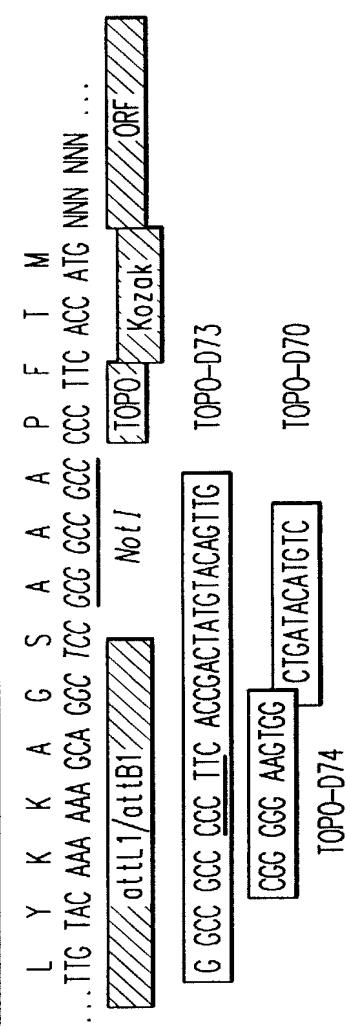
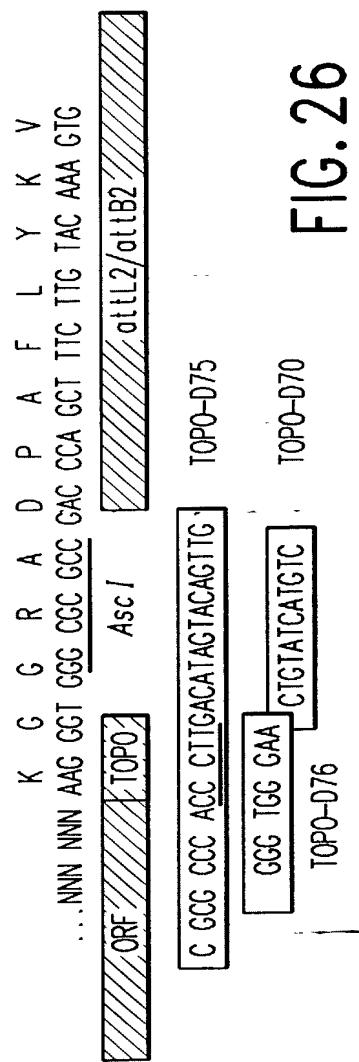
FIG.25B

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2821 tctcatgctg gagttctcg cccacccaa ctgtttatt gcagctata atggttacaa  
 2881 ataaaagcaat agcatcacaa atttcacaaa taaagcattt ttttcaactgc attcttagtt  
 2941 tggttgtcc aaactcatca atgtatctta tcatactgt ataccgtcg cctctagcta  
 3001 gagttggcg taatcatggt catagctgtt tcctgtgtga aattgttata cgctcacaat  
 3061 tccacacaac atacgagccg gaagcataaa gtgtaaagcc tgggtgcct aatgagttag  
 3121 ctaactcaca ttaattgcgt tgcgctcaact gcccgttcc cagtcggaa acctgtcgt  
 3181 ccagctgcat taatgaatcg gccaacgcgc ggggagagggc gtttgcgtt ttggcgctc  
 3241 ttccgcttcc tcgctcaactg actcgctcg ctcggcggtt cggtcgccg gagggtatc  
 3301 agctcaactca aaggcggtaa tacggttatc cacagaatca ggggataacg cagggaaagaa  
 3361 catgtgagca aaaggccagc aaaaggccag gaaccgtaaa aaggccggt tgctggcggt  
 3421 tttccatagg ctccgccccct ctgacgagca tcacaaaaat cgacgctcaa gtcagaggt  
 3481 gcgaaaccccg acaggactat aaagatacca ggcgttccc cctggaagct ccctcgctcg  
 3541 ctctcctgtt ccgaccctgc cgcttaccgg atacctgtcc gccttctcc ttccggaaag  
 3601 cgtggcgctt tctcatagct cacgtgttagt gtatctcaat tcgggttagg tcgttcgtc  
 3661 caagctggc tgggtgcacg aaccccccgt tcagccgac cgctgcgc tatccgtaa  
 3721 ctatcgcttt gagtccaacc cggtaaagaca cgacttatcg ccactggcag cagccactgg  
 3781 taacaggatt agcagagcga ggtatgttagg cggtgctaca gagttcttga agtggtgcc  
 3841 taactacggc tacactagaa gaacagtatt tggtatctgc gctctgtga agccagttac  
 3901 cttcggaaaaa agagttggta gctcttgatc cggcaaacaa accaccgctg gtagcggtt  
 3961 ttttgttgc aagcagcaga ttacgcgcag aaaaaagga tctcaagaag atccttgat  
 4021 ctttctacg gggctgcacg ctcaatggaa cgaaaaactca cgtaaggaa ttttggcat  
 4081 gagattatca aaaaggatct tcacctagat ctttttaat taaaaatgaa gttttaaatc  
 4141 aatctaaagt atatatgagt aaacttggtc tgacagttac caatgctta tcagtggggc  
 4201 acctatctca gcgatctgtc tatttcgttc atccatagtt gcctgactcc ccgtcggt  
 4261 gataactacg atacgggagg gcttaccatc tggcccccagt gctgcaatga taccgcgaga  
 4321 cccacgctca ccggctccag atttatcagc aataaaccag ccagccggaa gggccgagcg  
 4381 cagaagtggt cctgcaactt tatccgcctc catccagttt attaattgtt gccggaaagc  
 4441 tagagtaagt agttcgccag ttaatagtt ggcacacgtt gttgccattt ctacaggcat  
 4501 cgtgggtca cgctcgctgt ttggatggc ttcattcagc tccgggtccc aacgatcaag  
 4561 gcgagttaca tgatccccca tgggtgcaaa aaaagcggtt agtccttcg gtcctccgat  
 4621 cgttgcaga agtaagttgg ccgcagttt atcactcatg gttatggcag cactgcataa  
 4681 ttctcttact gtcattgcatt ccgtaaatgt ctttctgtg actgggtgatc actcaaccaa  
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 5041 ctccctttt caatattttt gaagcattt tcagggttat tgtctcatga gcgatcat  
 5101 atttgaatgt atttagaaaa ataaaacaaat aggggttccg cgacatttc cccgaaaaatg  
 5161 gccacactgac gtc

FIG.25C

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pENTR/SD-dTOPO: 5' ENDpENTR-dTOPO AND pcDNAGW-dTOPO: 5' ENDpENTR/SD-dTOPO, pENTR-dTOPO, AND pcDNAGW-dTOPO: 3' END**FIG. 26**

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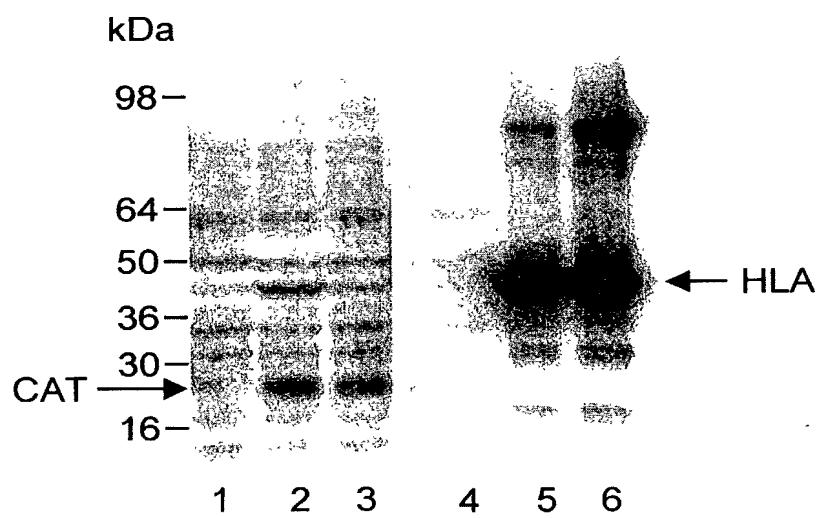


FIG. 27

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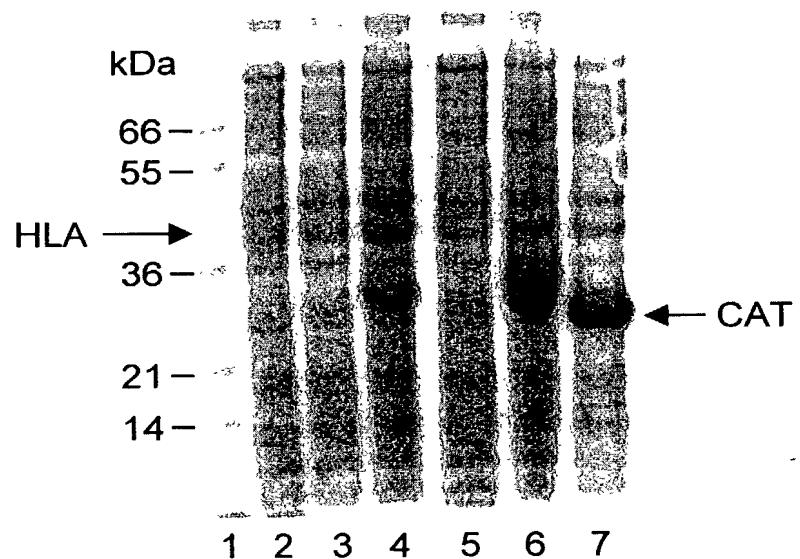


FIG.28

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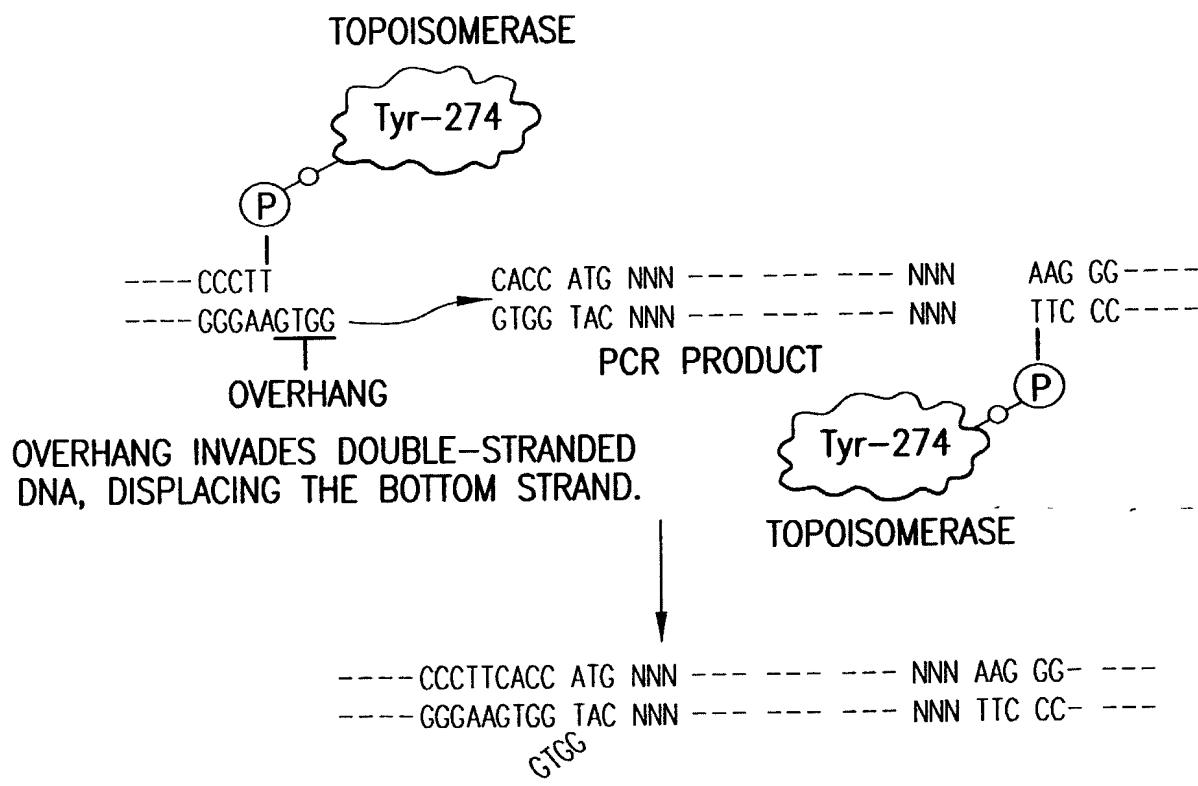


FIG. 29

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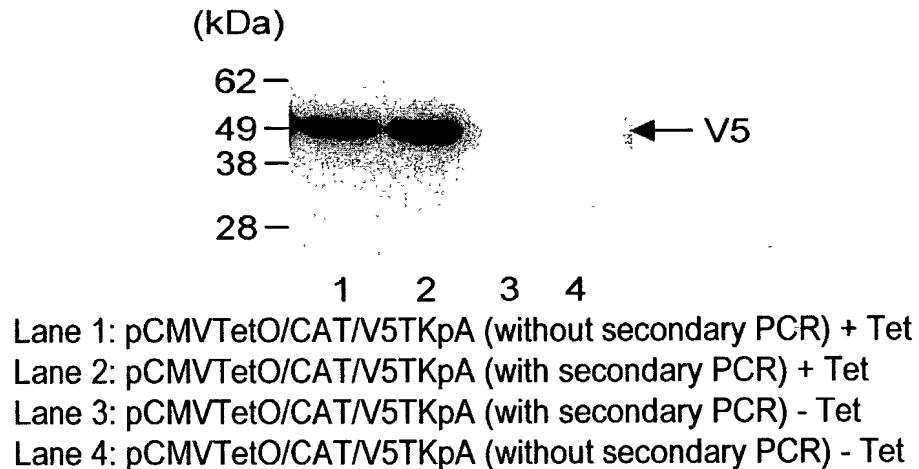
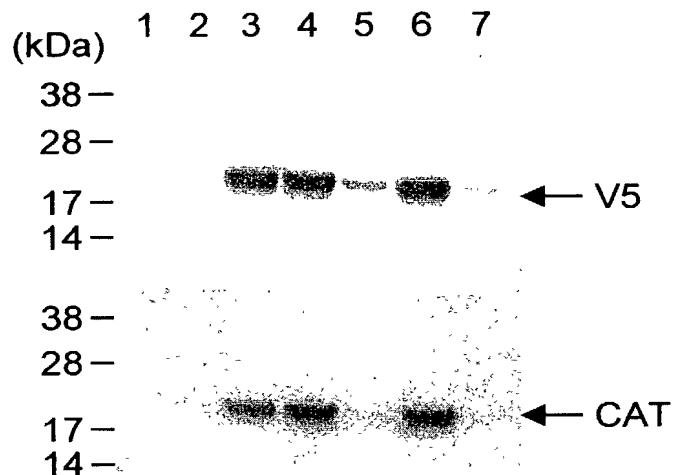


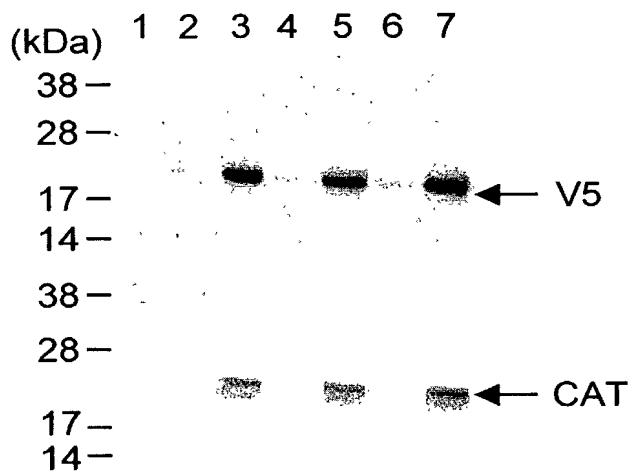
FIG.30A



- Lane 1: TRex-CHO Cells + Tet  
 Lane 2: without secondary PCR (with purified CAT ) - Tet  
 Lane 3: without secondary PCR (with purified CAT ) + Tet  
 Lane 4: without secondary PCR (with unpurified CAT ) + Tet  
 Lane 5: without secondary PCR (with unpurified CAT ) -Tet  
 Lane 6: with secondary PCR + Tet  
 Lane 7: with secondary PCR - Tet

FIG.30B

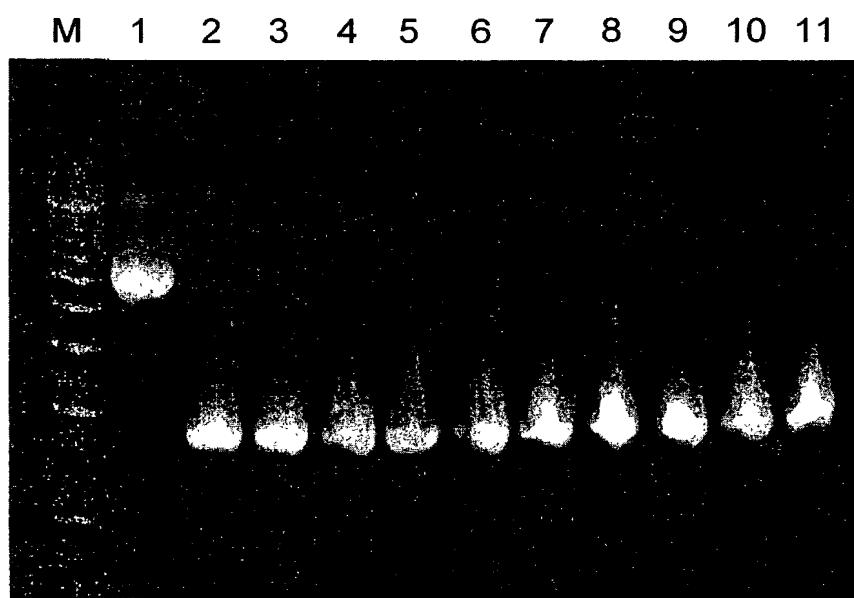
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- Lane 1: TRex-293 Cells + Tet  
Lane 2: without secondary PCR (with purified CAT ) - Tet  
Lane 3: without secondary PCR (with purified CAT ) + Tet  
Lane 4: without secondary PCR (with unpurified CAT ) - Tet  
Lane 5: without secondary PCR (with unpurified CAT ) +Tet  
Lane 6: with secondary PCR - Tet  
Lane 7: with secondary PCR + Tet

FIG.30C

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Lane 1: negative control; lanes 2-11: test clones; M: 500 bp marker

**FIG. 31**

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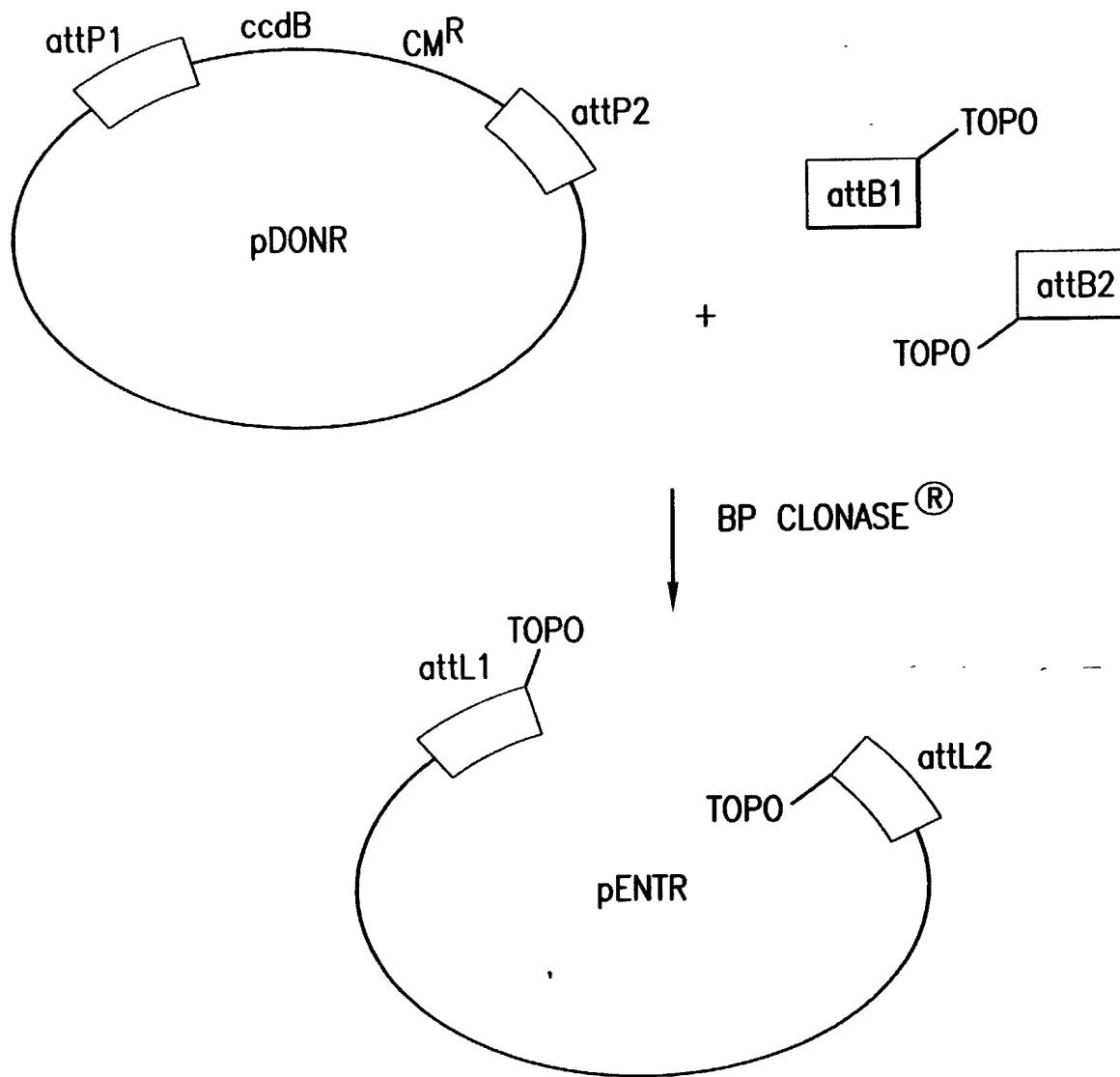
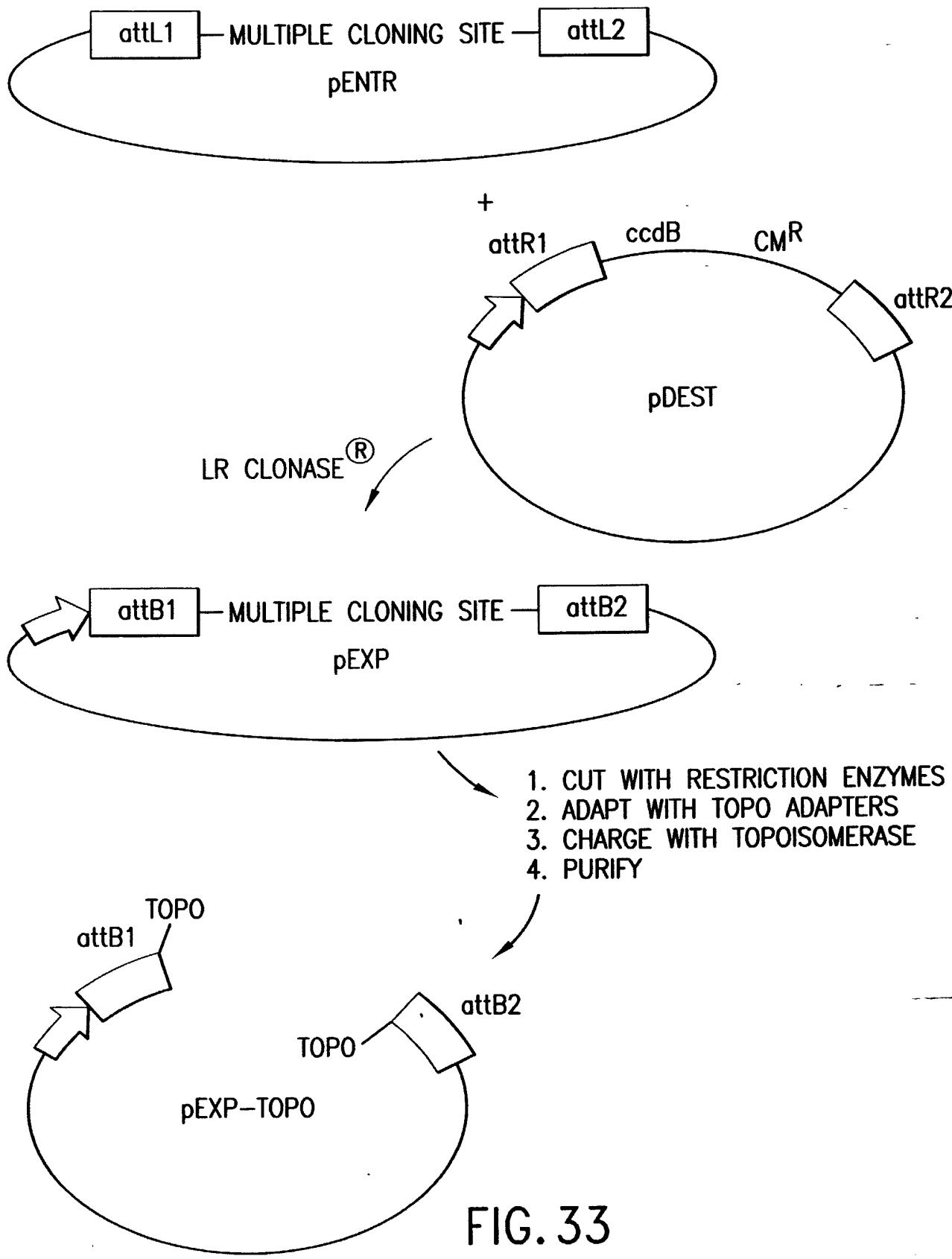


FIG. 32

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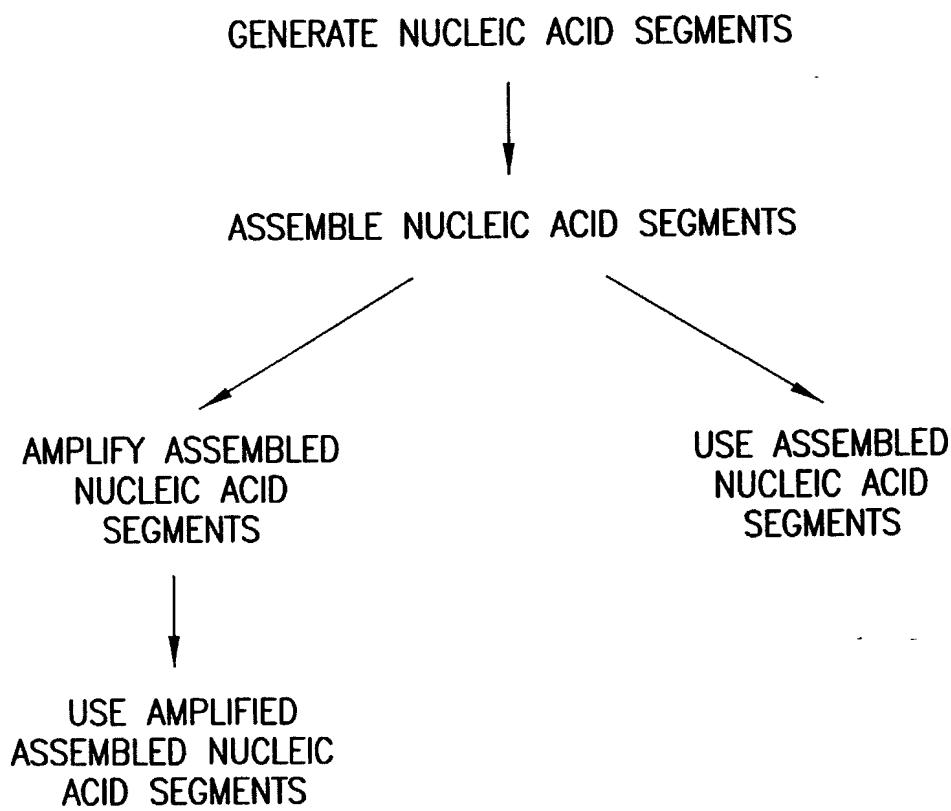


FIG. 34

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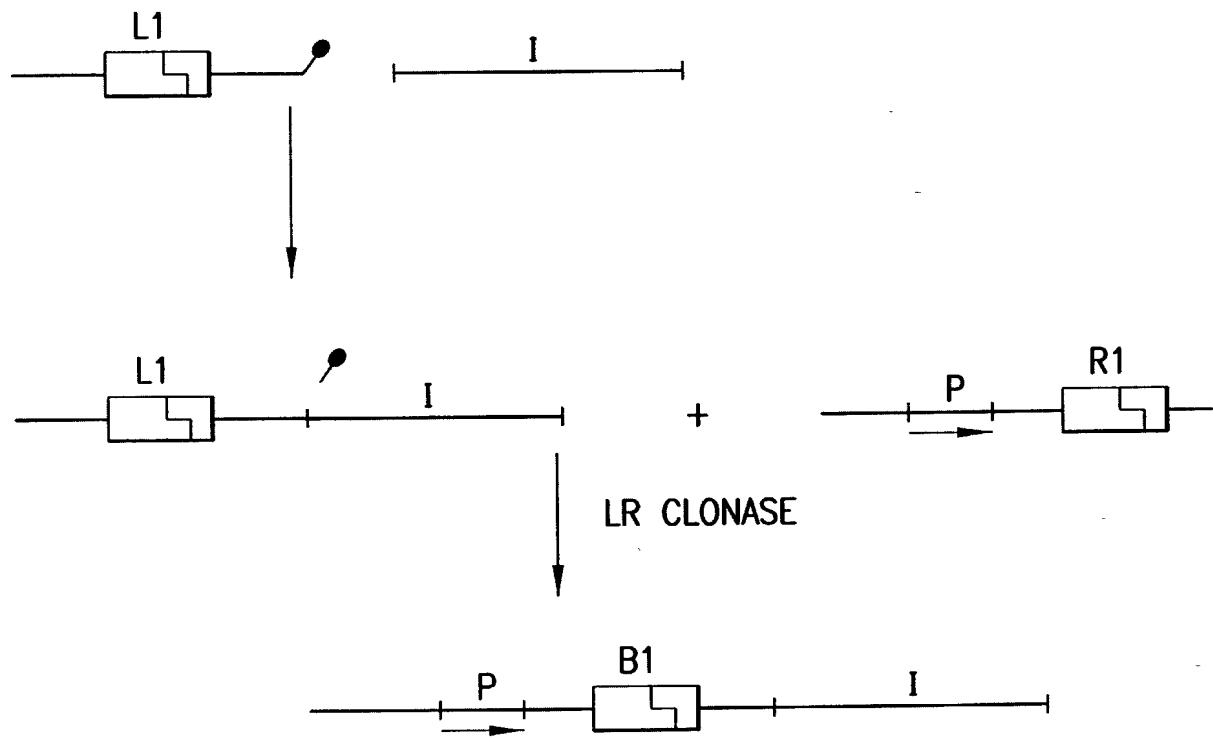


FIG. 35

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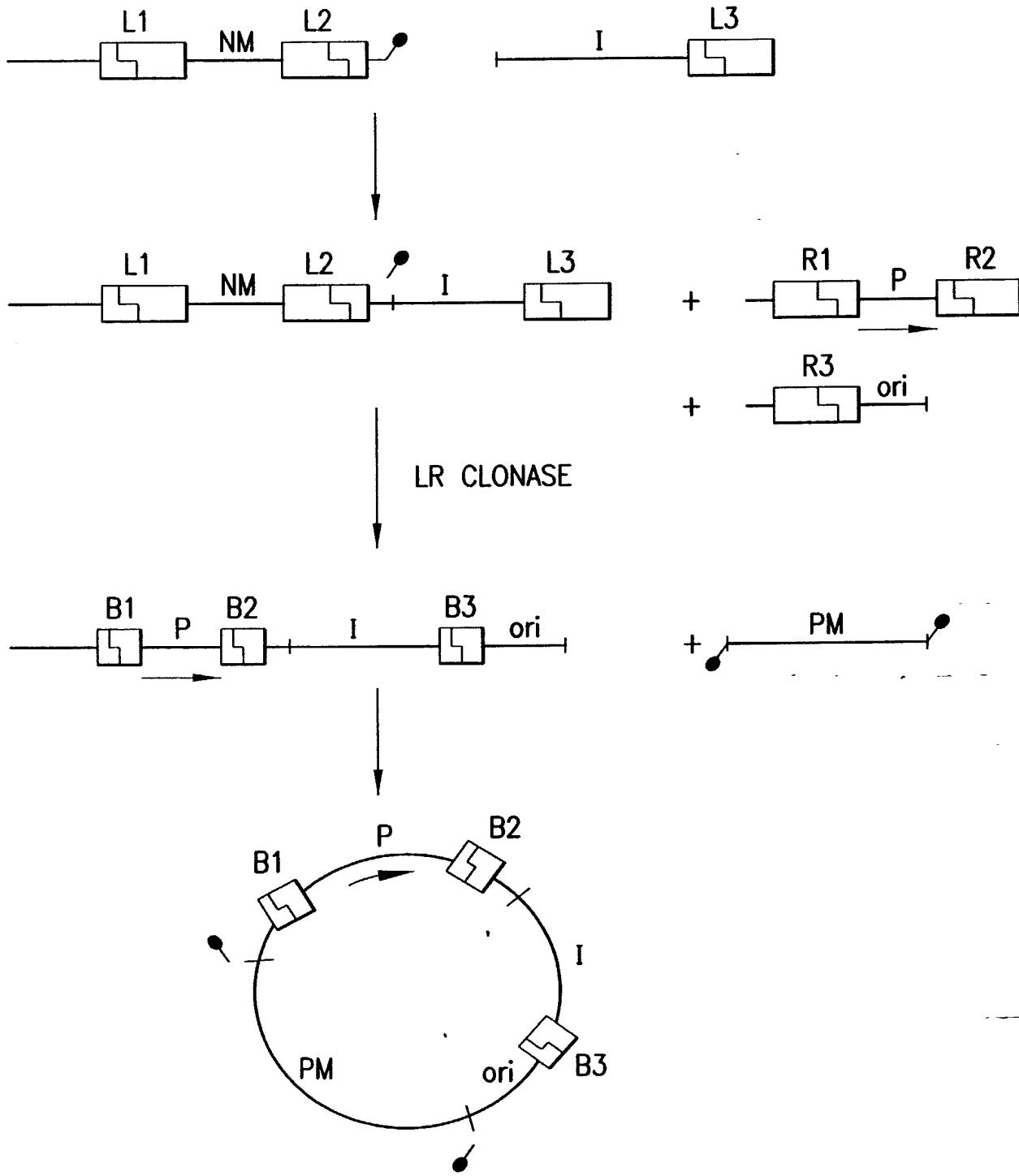


FIG. 36

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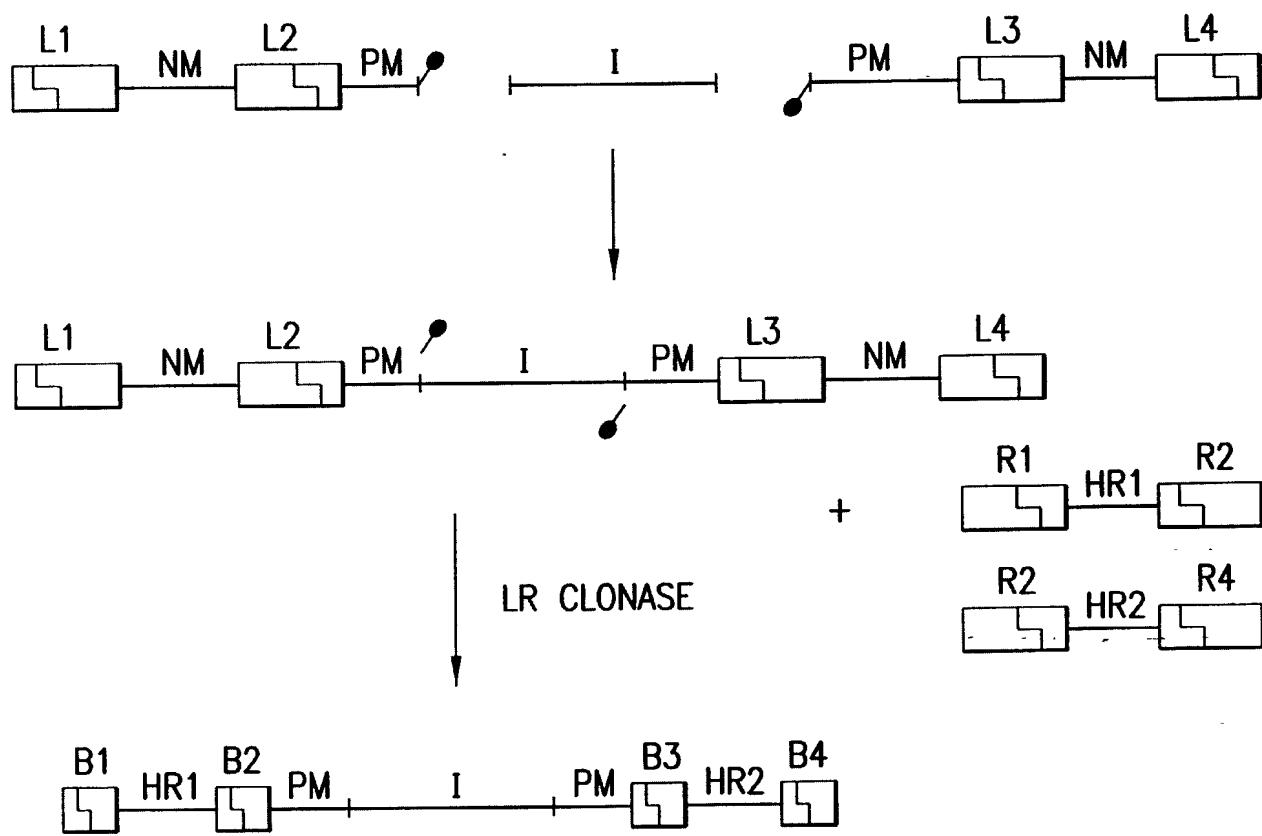


FIG. 37

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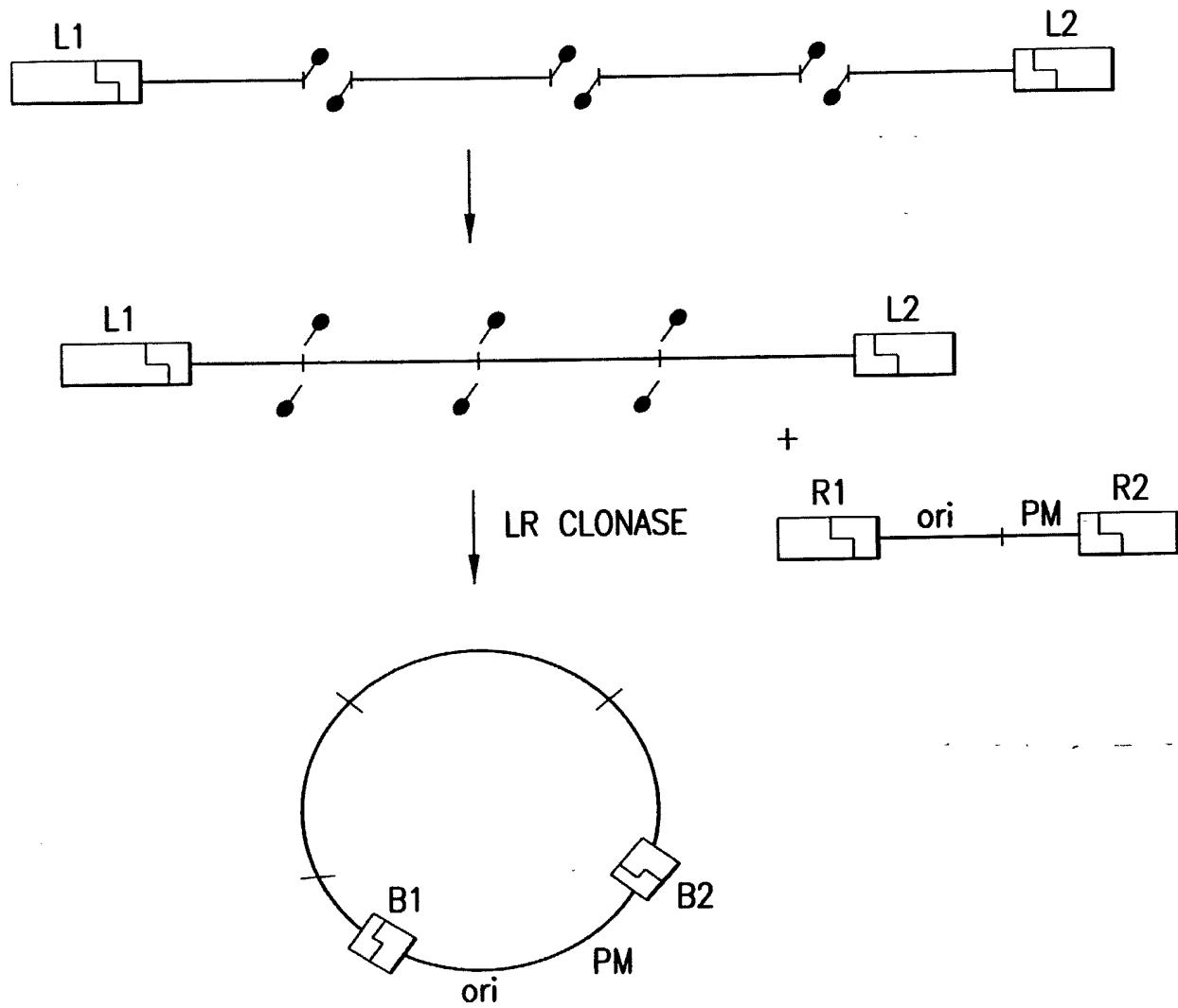


FIG. 38

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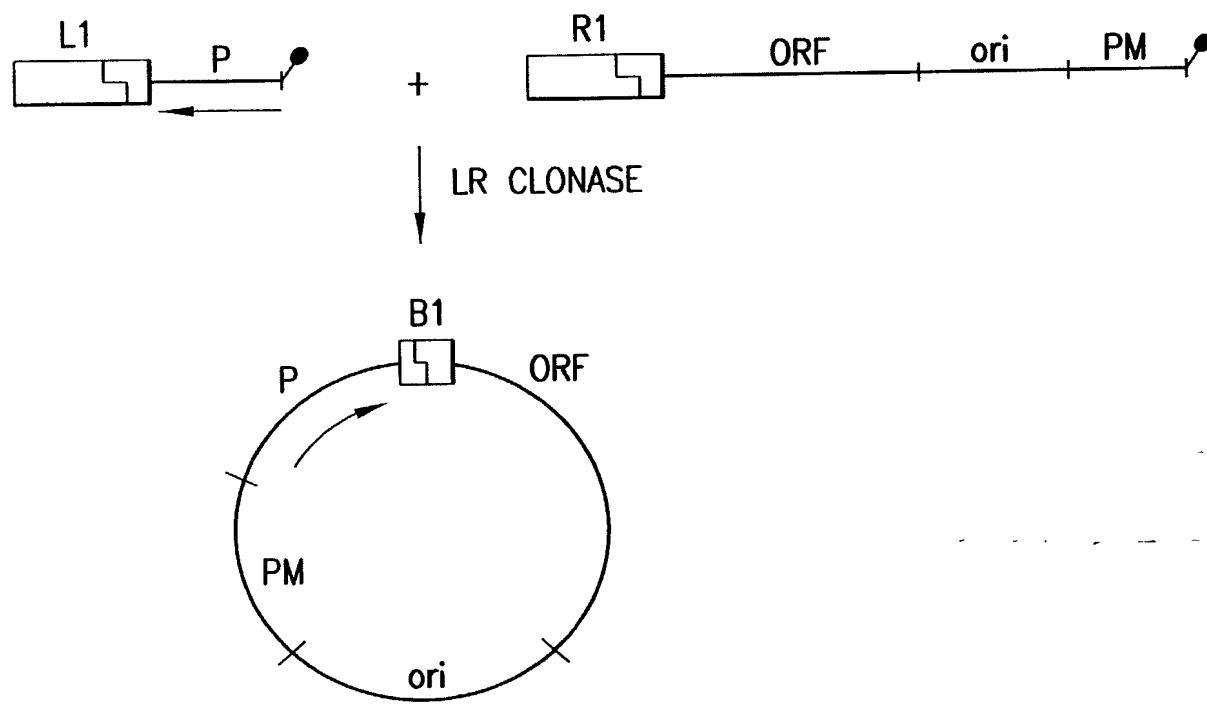


FIG. 39

Appl. No. 10/005,876, Filed: December 7, 2001  
 Dkt. No. 0942.5340002/RWE/BJD; Group Art Unit: 1645  
 Inventor(s): Chesnut *et al.*; Tel: 202/371-2600  
 Title: Method and Compositions for Synthesis of Nucleic Acid.

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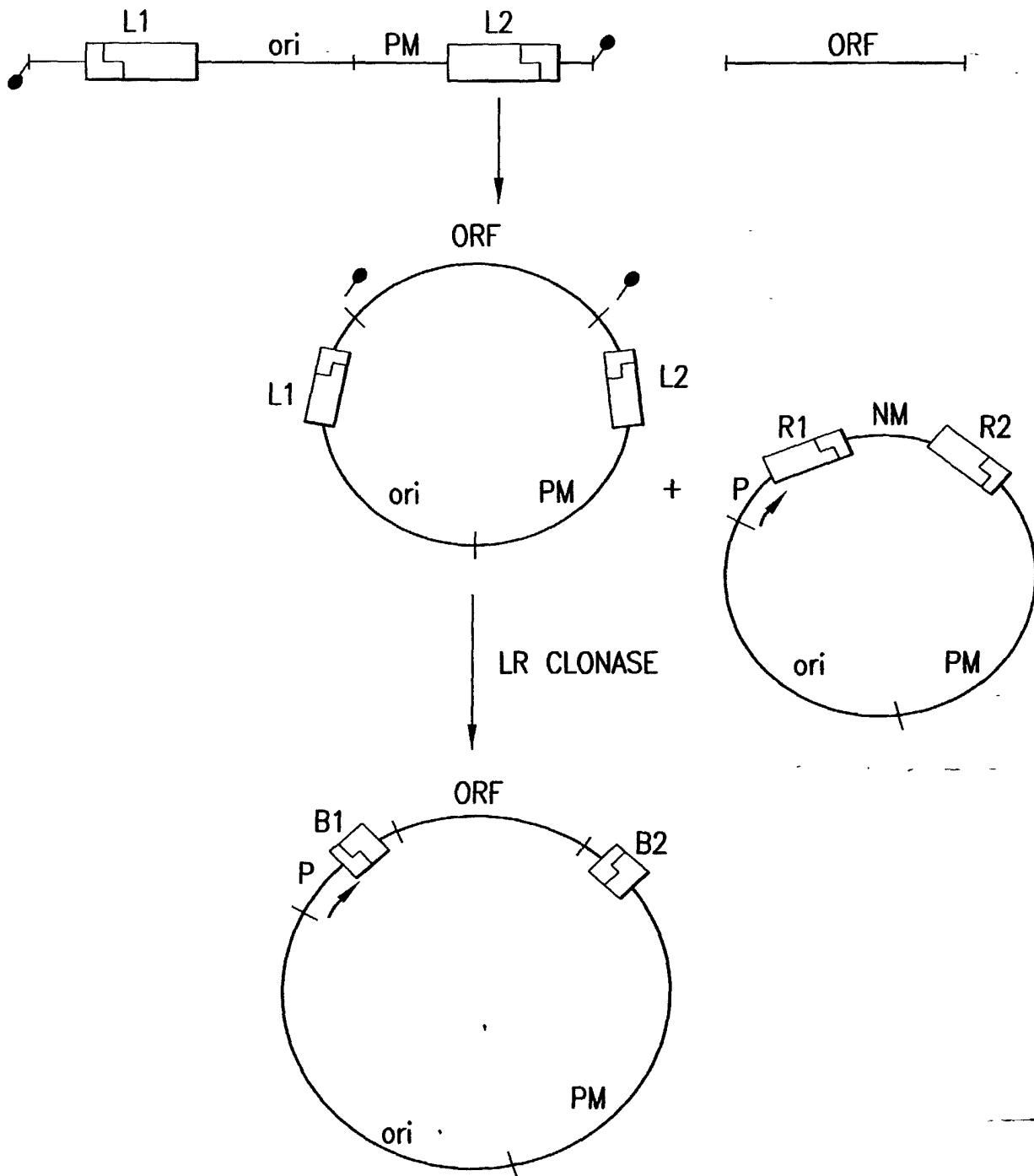


FIG. 40